The Educational Record

Published Quarterly by

The American Council on Education

Volume 12 January, 1931 No. 1

Editor:
C. R. MANN

CONTENTS

Two Ways of Improving the State Universities
By Lotus D. Coffman

The Economic Impasse of the Western World
By Glenn Frank

The Chicago Plan
By Robert Maynard Hutchins

The Cooperative Test Service
By Herbert E. Hawkes

The Committee on Problems and Plans in Education
By John H. MacCracken

Improvement of College Institutions through Educational Research
By M. E. Haggerty

Personal Service and Freshman Scholarship
By Lonzo Jones

Copyright and the Prohibition of Importation of Books
By Thorvald Solberg

Annual Subscription, $2.00

COPYRIGHT, 1931
AMERICAN COUNCIL ON EDUCATION

NATIONAL CAPITAL PRESS, INC., WASHINGTON, D. C.

Two Ways of Improving the State Universities*

THE civilization of America is built from the natural resources of America. When the pioneers came they found what seemed to be limitless natural resources. There were great forests extending far into the distance; there were broad acres awaiting only the touch of the plow and the hand of man to yield rich harvests; there were enormous deposits of ore awaiting only the coming of the scientist to produce the machinery of civilization; there were rivers whose water power was unharnessed.

We pay tribute to the pioneer who moved from east to west across this continent, facing all of the dangers of a new country filled with unfamiliar inhabitants and infested with wild life. The life of the pioneer is a life of romance. It appeals to old and young alike. But there followed in his wake those who made his home-sites more secure, who built railroads, constructed bridges, erected schoolhouses and churches, who laid the basis for a new civilization. Frontier after frontier was conquered. The "boundless" forests of New England, of Virginia, of Michigan, of Minnesota disappeared in turn. Today most of our building material is shipped from far-away Oregon, or Washington, or from Canada. As one travels through New England and Virginia today he is struck by the great number of abandoned farms. Census reports, just issued, show that the number of farms in practically every state is steadily declining. The rich top soil which man found, and which he exploited without giving a proper return, has been destroyed. The same kind of waste has been indulged in in the coal, copper and iron mines. With the cutting of the forests there has been a decrease of rainfall and a drying up of the swamps, a lowering of the streams, and a consequent disappearance of much of the game and wild life of the country.

*Presidential address at the annual meeting of the National Association of State Universities, Washington, D. C., November 19, 1930.

But it is true, nevertheless, that these forests and mines and this rich top soil and the other resources of nature have furnished us with the wealth which enabled us to establish our present level of civilization. They have supplied the resources which have made possible our great urban centers, our unparalleled means of communication, our great electrical development, and a thousand and one other things that contribute to the comfort and pleasure of our people. The wealth derived both directly and indirectly from the riches of nature has paid the bills for all of our social and welfare work. It has helped to establish and to maintain the charitable and penal institutions, and it has been largely responsible for the great progress which America has made in the development of her educational system.

America derived the funds to establish and maintain her standard of living, her forms of institutional life, including education from agriculture and its products, from the forests and their products, from the mines and their products, from the development of the streams and their products.

Now America faces a new situation. There are no more forests to speak of. It will take fifty years or more of care and cultivation to produce a pine forest of commercial value in Minnesota. The mines are being exhausted. The top soil is becoming thinner and more fertilizer is being required every year to make it productive. The number of farms is becoming fewer. Water power, to be sure, is being developed, but there is less water to be harnessed than there was a hundred years ago. Meantime civilization has become more complex, its problems more numerous and more difficult of solution. The important question which the American people face is: How shall the civilization which we have established now be maintained and advanced? Certainly we cannot use the methods which our forefathers used if there is nothing to which we can apply them; we cannot cut timber if there is no timber to cut; we shall not be interested in mining if there is no ore to be mined.

Perhaps it may be said that we are no longer dependent directly upon nature for our material development, and in a

certain sense that is true, for man has, through inventions, devised thousands of new ways of producing wealth and of contributing to his comfort—ways that sometimes seem remotely related to the processes of nature. Man, for example, has organized capital and built machines which have greatly increased his power of production. Yet the fact remains that these have been achieved in large part because of the supplies nature so lavishly furnished him. In achieving these things it is obvious, even to the most casual observer, that he has been wasteful of nature's supplies; now he must turn to means to aid him if he is to maintain and to advance civilization.

When Mr. Julius Rosenwald created a great foundation at Chicago recently, he issued a statement to the effect that he expected the entire sum to be spent within the next twenty-five years. He said that he believed that each generation should spend its own riches in improving conditions largely for itself. This I believe to be essentially an unsound doctrine. We have built this civilization, to a very large extent from capital which we found. In destroying that capital and in utilizing its products for our own personal benefit we lay a heavier burden upon the generations that follow to maintain and advance civilization. There is current in America a doctrine that each generation has gotten along fairly well, therefore the next one can. We say we have provided for ourselves, therefore why should we make any provision for the next generation? We assume that it will be as easy for it to make progress as it has been for us. That, too, in my opinion, is a thoroughly blind and selfish position to take with regard to the welfare of the social order. If we establish a basis for civilization and assume that those who follow after us will find other sources of wealth to maintain it, time may prove that we have reckoned without the costs.

It is my opinion that the course of civilization in the future, certainly so far as its material benefits are concerned, will depend upon what happens in the laboratories of men. New wealth may not be as easy to obtain in the future as it has been in the past. It seems clear that the next generation may

find that it must supply its wants by relying upon research rather than upon bounteous nature. It will be more expensive to maintain and advance civilization through science than it has been to advance and maintain it on the profits of nature.

Our generation and those that preceded it have been drawing heavily upon their capital assets for current operations and expenses. By capital assets I mean the measured resources which nature gave them. They have converted these into money and spent it. But very little of this capital has been set aside as an endowment. Almost no provision has been made for future growth. We have gone on cutting our trees, exhausting our mines and devastating our soil, with little thought or consideration for the welfare of the next generation.

One cannot say that no consideration has been given to it, for both the federal and state governments have set aside some lands and timber for the endowment of education, and in more recent years the legislatures of a number of states have provided that a certain share of the occupational and royalty taxes shall be converted into endowment funds for education. But the endowment funds are altogether too small to be especially significant.

If the leaders of the various states are interested in building a civilization where there will be little or no poverty, where men will enjoy all the known comforts of life, where they will have the benefit of the most modern developments of medicine, of surgery, and of nursing, where literature may flourish, where education will be universal, where science will be stimulated and creative work will be encouraged to the very limit, they will not be satisfied with the biennial legislative appropriations their legislatures grant them. They will take steps looking toward the establishment of great endowments, the income from which shall be used for these purposes.

One state has already taken steps towards the achievement of this end; it is the state of Texas. She has made provision for the building of an endowment, so I am told, for her uni-

versity which will amount to two hundred million dollars. This means that there will be a great people in Texas whose welfare and interests will be studied and served, whose problems will be examined and solved by great scholars and scientists on the staff at the University of Texas.

Not long ago I heard a distinguished gentleman say that the state universities of this country could not compete with the great private universities; that the private universities, with their endowments and with the increasing millions which come to them annually in the form of gifts from their friends and alumni, will make it impossible for the state universities ever to compete with them. This is a confession that the states are willing that their universities shall be commonplace, that they shall not exercise the leadership to which they have aspired; for, if they cannot compete successfully with the private universities, they will never be able to attract or to retain persons of distinction on their own staffs. There are very few states, if any, in the Union that are not wealthier than all of the alumni of any of the private universities. There are undoubtedly some states that have more wealth than all of the alumni of all the private universities combined. Furthermore, there is no reason why the states should not do for their universities what the alumni are doing for private universities, that is, set out deliberately to aid them by building large endowments for them year by year. This can be done without molesting in any way the effective control of the people of the state through the legislature over the universities and, furthermore, it will lay the basis for continuing and advancing civilization generation after generation.

In addition to the alumni of private institutions, the great foundations of this country appear to be more interested in financing and endowing private institutions than they are in financing and endowing state universities. A study of the contributions to higher education made during the last seven years by the General Education Board, the Carnegie Corporation, the Rockefeller Foundation, the Commonwealth Fund, and the Laura Spelman Rockefeller Memorial reveals the

very interesting fact that 91.5 per cent of their contributions during this period have been made to private universities and to private colleges, 8 per cent have been made to state universities, 0.1 per cent to municipal universities, and 0.4 per cent to state colleges. It also reveals the fact that these grants are made to a small number of institutions. These institutions have been described recently as "prestige" institutions. It would appear from the distribution of funds by the foundations during this period of years that there is some basis for the opinion that they are not genuinely interested in research or in higher education as such but that they are interested in research and higher education in a limited number of these prestige institutions.

The baneful effects of this policy upon higher education in general—if it be a policy and if it is continued—are perfectly obvious. Consideration of this important matter must be given by the various states and individual philanthropists if public welfare is to be conserved and advanced.

There is no good reason why the great foundations should not finance and endow projects at state institutions if highly favorable conditions for carrying on these projects prevail at these institutions. In fact, the stimulation of intellectual effort and provision for permanent centers for research at various places across the country, in both public and private institutions, is highly desirable in the interest of higher education and in the interest of public welfare. But this is not the policy of these foundations; at any rate it does not appear to be their policy. The foundations should join with the states just as they do with the alumni and others interested in the private universities in providing endowments at state institutions for the purpose of insuring social progress.

Every state that looks to the future will take steps to provide for its progressive development. In doing so it must be willing to spend millions for research and conservation; it must provide endowments of tens of millions rather than hundreds of thousands.

In the second chapter of this paper I wish to discuss another matter which I think will contribute to the distinction of the

state universities. Endowments I believe to be necessary, but it will take time to build them. Meantime there is no good reason why the state universities should not give careful consideration to the allocation of functions. There is, we know, in America a marked tendency for higher institutions of learning to duplicate each other. Hitherto, institutional respectability has seemed to require this. And yet in this very tendency there is a weakness, if not a menace, to American education. It could easily be shown that the refusal on the part of higher institutions of learning to consider the allocation of functions results in inefficiency and in mediocrity. Not all of the colleges and universities can be distinguished in everything or in many things.

Some of the duplication of work and of effort in the universities is both socially necessary and desirable; that, for example, which provides training in the common essentials of an educated citizenry; but that which is dedicated to special fields of learning and to limited sections of knowledge would prosper more if it were, by agreement, concentrated in fewer places. Research in limited fields and sections of learning and knowledge could be carried on in a few places, the several institutions cooperating rather than competing as at present.

A few illustrations will make clear the lack of national and state policy with regard to this problem. The Federal Government has made grants from time to time for the promotion of higher education. These grants have often been made and certainly they have been distributed on artificial bases that had little or no relation to need. Money has been distributed for agricultural and engineering experiment stations in the form of an equal sum for each state. The same practice, in general, has been followed with regard to the distribution of other money for the promotion of other types of research or education in which the Federal Government is interested. In other words, this money is distributed to states without regard to whether or not they possess the conditions necessary for its wise expenditure. A typical illustration will suffice.

Washington and Idaho receive practically the same amount of money from the Federal Government. The land-grant college in Washington is located 8 miles from the University of Idaho. Each of them has all of the departments that a college of agriculture is supposed to have. Each of them maintains a school of forestry and each of them maintains a school of mines. They are trying to serve the same agricultural, forest, and mining area. If it were possible, under federal legislation, for Idaho to limit her functions to certain fields and Washington to limit hers to still other fields, abler men could be secured at each of these institutions and the whole area which the two universities are supposed to serve would profit thereby.

How many schools of forestry or how many schools of mining or how many genuine agricultural experiment stations this country actually needs, the country has never really dared to say.

The states have gone on accepting the money which the Government has handed them for forestry, or mining, or agriculture, even though they may not have possessed facilities competent to carry on high-grade research. In other words, the money has not been distributed to the men who have already demonstrated their fitness and ability to do or to direct the research work which our national welfare requires. As a matter of fact, many of these men may not be in state institutions at all; they may be in private universities. It has been the general practice and policy of the Federal Government to distribute its money to public rather than to private institutions. The consideration on the part of the National Government of the allocation of functions and the distribution of money according to areas, and according to the location of men competent to carry on research, would result in a wiser expenditure of money. Fewer centers, properly located, thoroughly equipped, and unusually well staffed, will produce more in the long run than a large number of centers inadequately equipped and poorly staffed.

It may be said that federal money has been distributed partly for the purpose of stimulating research in certain

areas, but research cannot be stimulated in this way. It is possible to build a building and to equip it and to call it an institute of research of some sort, but it takes more than buildings and equipment to produce research. Now and then there may be an isolated case of a man of rare ability located at some one of these more remote experiment stations. They would be found in greater numbers, however, if the experiment stations were consolidated and if the problems upon which they are at work were related to the interests of geographical areas. In other words, the Federal Government, if it desires to have its money used to promote the common welfare in a most effective manner, should disregard state and political lines and arrange for its distribution on the basis of the common problems found in given areas and regions.

Not only has the Federal Government failed to exercise foresight and wisdom in the distribution of money for educational purposes, but the states themselves have perhaps been equally derelict in this matter. The distribution of federal moneys has been controlled largely by politics rather than by educational needs. The appropriation of state moneys has been controlled to a very large extent by local pride and prestige. There has been a struggle on the part of the state universities to acquire academic respectability. This has consisted to a large extent in the number and variety rather than in the quality of offerings.

It would be the part of wisdom, so it seems to me, for those institutions located in a given region to join in outlining their programs, in defining their functions, and in allocating their responsibilities. To be specific, the state universities at Illinois, Iowa, Ohio, Michigan, Wisconsin, and Minnesota might agree that Minnesota should become the great library center for the Scandinavian cultures and that all these other institutions should assist the University of Minnesota in becoming such a center. They might agree that the University of Michigan should become a great center for the Romance languages and that all the other institutions should assist Michigan in becoming such a center. If this plan were

followed and extended, each of these universities might become the leading library center for some one of the great fields of learning. Each of these universities would, of course, have in its library all of those books and pamphlets and other materials which are necessary for undergraduate instruction and for the common culture of people everywhere.

Again, it would seem that cooperation in carrying on experiments of direct interest to agriculture is possible. There is already considerable cooperation in this field. It is doubtful, however, whether the large-scale stock feeding experiments are necessary at Wisconsin, Minnesota, Ames (Iowa), and Illinois; at any rate, it scarcely seems that they need to be carried on simultaneously. Experiments of this sort require large sums of money. It should be possible for those who are interested in the stock feeding experiments at these various institutions of learning to be constituted into a cooperating committee with the understanding that the various members of this committee would direct the experiments and check all the results. What has been said with regard to stock feeding applies with equal force to poultry raising, to the various aspects of animal husbandry, to the study of plants and insects injurious to crops, to the diseases of animals, and the like.

If this plan were extended, it is conceivable that institutions would send students who have received certain fundamental training to each other for more advanced training. It is conceivable that the states would provide scholarships which would enable them to send men from Minnesota to Wisconsin or Illinois or Iowa for certain training, while Wisconsin, Illinois, and Iowa in turn would send certain men to Minnesota for certain training. Such a plan as this would insure a better and higher grade of scholastic work; it would promote and encourage research; it would insure greater permanency on the part of the staff; and it would enable the institutions to pay the abler men more than they are now receiving, for with a limitation of functions some money would be released which could be used to improve the quality of the staff.

Some of the private universities have already appointed

committees to consider this very matter. I know of one group of institutions that has appointed a committee of research in the various medical fields with a view to emphasizing to a greater extent than hitherto the researches to be carried on at each of these institutions. For example, one of them may become the cancer center, another the eye, ear, nose and throat center, and so on. This means that the private institutions associated in this manner will not be appealing to the same sources for funds for the same purpose.

Whenever the colleges and universities of America free themselves from that fetish of respectability which requires them to offer instruction that their neighbors are offering; when they cease to compete for the purpose of salving their consciences; when they decline to appeal for money because someone else has something; when they discard that selfish tradition to which they cling and before which they worship —a tradition that those are best which present the greatest variety of offerings—then college and university instruction in America will be conducted on a higher plane than ever before. Whenever the public is able to rise above state lines, whenever its legislators refuse to think of the political consequences of their acts, then the universities will receive that encouragement, sanction, and support that they should have in carrying out the kind of program which is herewith outlined.

It is my opinion that the next ten years or less will see many steps taken in both of these directions, that is, the establishment and growth of state endowments for state universities and the allocation of functions between the institutions themselves.

LOTUS D. COFFMAN,
University of Minnesota.

The Economic Impasse of the Western World*

ALONG the entire frontier of Western civilization the forces that have made for the collapse of markets, the retardation of economic enterprise, and the unsettlement of mass confidence in current leadership are today challenging the worth and the workability of the Western economic order. And in the midst of this world-wide economic depression the forces of education and the forces of industry are occupying the two most heavily shelled sectors of the Western world's social battle-line. We do not yet know what the outcome of this challenge and of this contest will be. The forces of education and the forces of industry may be beaten into panic retreat by the disintegrative forces of revolution or by the integrative forces of dictatorship. The captains of education and the captains of industry may rest content with defensive tactics, dig themselves more deeply in, and do no more than hold their own for some time to come. Or they may evolve a fresh strategy of advance and move forward to new conquests of economic prosperity and social good.

I am not foolhardy enough to venture a prophet's guess among these three possibilities. I am content to say that I think the third outcome is possible, and that it lies very largely with the leadership of education and the leadership of industry to say whether or not it shall be realized.

The United States is, at the moment, in the midst of the most serious economic crisis in its history. Even with markets tumbling about our ears and with salesmen reluctantly reporting their quotas unfilled, there is, save for the breadlines in our congested centers, a bright, delusive air of well-being among our people that tends to hide from the average American the deeper significance of the depression through which we are passing. We have known phases of slowing

*Address delivered at the Annual Meeting of the National Association of State Universities, Washington, D. C., Nov. 20, 1930.

down in which the American people, as a whole, were on a lower level of living than now, but in its basic character the current depression is unlike and more serious than any depression that has preceded it. It is the first general crisis that has befallen us since our machine economy has come to measurable maturity. It is not a matter of momentary maladjustment in any one section of the world. It is not a matter of momentary speculative mania disrupting an otherwise statesmanlike and stable economic program. There is nothing to be gained by beating about the bush. The entire economic order of the Western world has reached an impasse from which only the most clear-headed, creative, and courageous educational, industrial, and political leadership can extricate it.

That this is not the facile generalization of a frightened academician is proved, I think, by four obvious but all-too-generally overlooked aspects of this depression, viz:

First, the current economic depression is not simply American; it is world-wide. I call a partial roll of the areas that are, in varying degrees, today feeling the impact of one aspect or another of economic depression: The United States, Great Britain, Canada, India, Australia, Germany, Italy, Sweden, Switzerland, Poland, Czecho-slovakia, The East Indies, The Netherlands, Mexico, Chile, Peru, Brazil, The Argentine. And so on. We are in the presence, gentlemen, of a world phenomenon. The Americas, Europe, Asia, Africa, and the Antipodes—all stand today as if some subtle spell of economic witchcraft had been put upon them.

Second, the current economic depression is not simply a financial depression; it is industrial as well. We should today be wrestling with forces of economic retardation even if there had been no Black October in the 1929 operations of the Stock Exchange. The market debacle was but an eddy in a major current of economic tendency. In the United States, significant sections of industry, such as the automobile industry, had been reaping the easy harvest of a first-sale market, and were beginning to reach the point at which, by and large, the market was settling down to a matter

of replacements and of meeting the new needs created by normal growth of population, or by radically new departures in design, quality, and price. American business and industry were catching up on the postponed building and buying that had kept the air electric with enterprise in the immediate post-war decade. Various artificial stimuli to business, such as installment buying and the mania for annual models, were rounding out their pioneer push and settling down to a normal pace of development. And throughout the world the potential energies of the machine age were beginning to feel the irrational restrictions of tariffs and trade policies that had been created by an obsolete political leadership, tariffs and trade policies that stood and still stand in utter violation of the clear conclusions of common sense and of all the canons of constructive statesmanship. The current depression is more than a *faux pas* of the financiers; it is a kind of judgment day for industrial leadership. We might reform the Stock Exchange and still the ghost of this depression would not down, for it sinks its roots in all the policies and processes of our industrial order.

Third, the current depression is not simply financial and industrial in its scope; it is agricultural as well. I need not, I am sure, argue this assertion. Alongside the world-wide industrial depression there is a world-wide agricultural depression, again emphasizing the fact that the phenomenon we are facing goes to the very foundations of the economic order of the West, in particular, and of the world, in general. The agricultural aspect of the current depression strikes, with utter impartiality, exporting and importing countries alike. Such exporting countries as the United States, Canada, and Australia are hit by an agricultural depression due primarily to economic and secondarily to political causes. Such importing countries as Germany and England are hit by an agricultural depression due primarily to political and secondarily to economic causes. For every existing agricultural surplus in any part of the world there are somewhere in another part of the world undernourished bodies enough to absorb it. But we seem not to be able to muster a

statesmanship that can lift the peoples of these areas of under-consumption to the level of paying customers and bring the supply into contact with the need. And so we must admit a bankruptcy of leadership and shame ourselves by confessing a world-wide agricultural depression that would be unthinkable to a really intelligent race.

Fourth, the current economic depression is not marked by an over-production of manufactured goods alone; it is marked by an over-production of raw materials as well. In the last decade or two there has been a staggering increase in the production of raw materials and foodstuffs. From 1909 to 1914, the average world production of sugar was 19,363,000 short tons. By 1929, it had jumped to 29,970,000 tons, or, roughly, a 50 per cent increase. In less than two decades the United States increased its wheat acreage from 47,000,000 to 61,000,000 acres, while Australia and Canada more than doubled theirs. The world had a full year's supply of coffee on hand when this year's crop was ready for harvest. The world output of tea jumped, in four years, from 856,000,000 to 945,000,000 pounds. Rubber jumped from 51,000 to 68,000 long tons. From 1926 to 1929, the world output of tin jumped from 145,000 to 195,000 metric tons, lead from 1,606,000 to 1,775,000 metric tons, zinc from 1,245,000 to 1,470,000 metric tons, and copper from 1,485,000 to 1,908,000 metric tons. This expansive output of raw materials is, again, a world-wide phenomenon. From 1910 to 1914 Australia's average wheat production was 90,497,000 bushels. Twelve years later it had jumped to 160,762,000 bushels. In 1913, Australia's wool production was 711,500,000 pounds. In 1927, it had jumped to 883,304,000 pounds. In 1913, Chile's output of copper was 93,147,000 pounds. In 1928, it had jumped to 528,487,000 pounds. And even in the face of the rapid development of synthetic nitrates in Germany, England, and the United States, the output of Chilean nitrates jumped from 2,772,000 metric tons in 1913 to 3,163,000 metric tons in 1928. I take these figures, more or less at random, and with no attempt to paint a complete picture, in order to emphasize the fact that the current glut

of manufactured goods is not the whole story of the current depression.

We are face to face, then, with a phase of economic depression that is world-wide in scope, financial, industrial, and agricultural in character, and marked by a sluggish surplus alike of manufactured goods and of raw materials. But tonight I want to do no more than suggest a point-of-view respecting the industrial depression in the United States and say what I think it implies by way of challenge to the leadership of education and the leadership of industry.

As the United States swung into the closing months of 1929, our machine order was never more efficient from the point of view of potential productive capacity, but our economic order found itself swamped rather than served by the efficiency of the machine order. (I use these terms—machine order and economic order—in a more severely separate and limited sense than the technical economist uses them. By the machine order I mean the whole array of processes by which we make goods and produce wealth; by the economic order I mean the whole array of policies by which we use goods and distribute wealth.) Never was there less defensible excuse for economic depression than in the closing months of 1929. There was no shortage of money. There was no shortage of basic resources. There was no lack of willing hands to work. There was no lack of productive efficiency. There was no plague-like adversity of wind or weather. There was no insect pest either nation-wide in its ravages or seriously out of hand. There was no invader hammering at our gates to terrify our spirits and to disrupt the normal processes of our enterprise.

On the contrary! There was an ample money supply. There was a surplus of nearly all basic resources. There were millions of workers ready to work. The productive efficiency of the nation was such that the needs of its people and much besides could have been easily supplied with shorter working days and a shorter working week. At no moment in human history had a people found itself in possession of so nearly all of the material essentials for a great and glowing civiliza-

tion. It was at such a moment that the United States found the shadow of a serious economic depression falling athwart its life.

At the very moment when the market collapse and economic retardation befell it, the United States was basically at the point towards which the dreams of prophets and seers have pointed through the centuries. As we re-read the literature of Utopian thought and list the things that the social seers have, with striking unanimity, set down as elementary requirements of an ideal society, we find that the United States was in position to provide them all in the closing months of 1929. It had invented machines enough to emancipate its people from drudgery. It had achieved a productive efficiency that made possible the production of everything its people needed without their slaving from dawn to dusk. Leisure in which to laugh and love and adventure among things of the mind and spirit was within the nation's grasp.

And yet, just when we had reached the point at which emancipation from drudgery, the capacity to produce all the essentials of material well-being without the slavery of inhuman hours, and the potential achievement of prosperity and leisure for all were at hand, we found ourselves victimized by a financial debacle, an economic recession, and a vast social unsettlement, in which men walked hungry in the midst of plenty. What must the gods have thought as they watched this tragi-comedy!

I do not want to join the over-simplifiers, and bring a false clarity to a situation that is admittedly complex. The cause of the current economic situation cannot be captured in a phrase or its cure distilled in an epigram. But one thing is, I think, sun-clear: The leadership that has developed our policies for using goods and distributing wealth has proved inferior to the leadership that has developed our processes for making goods and producing wealth. We cannot, of course, tear the machine order and the economic order apart in our thinking. They are too intimately interlocked. But in the deepest sense I think it is accurate to say that the

current depression is, in essence, an indictment, not of the machine order, but of the economic order.

Let me translate these abstract observations into concrete terms. It is by now a threadbare platitude—even if a young platitude—to say that our machine economy is in trouble because our capacity to purchase has not kept pace with our capacity to produce. Following the war, some of the more far-sighted leaders of American business and industry adopted a new credo that said a stable and widely distributed prosperity and healthy industrial development required high wages, short hours, and low prices. This ran contrary to the naive business thinking of earlier generations that said low wages, long hours, and high prices made for maximum profit. But outstanding industries throughout the United States proved by their balance sheets that high wages, short hours, and low prices were not only good for the masses but good for the manufacturers. And we are in the grip of depression now, not because we followed this new credo of business, but because we did not follow it generally enough or apply it far enough.

The simple fact is that a machine economy must, along with the making of commodities, see to it that the consuming millions have money with which to buy and leisure in which to enjoy the products the machine economy creates. And that means higher wages than we have yet paid, shorter hours than we have yet set, and lower prices than we have yet fixed. Our machine economy is today sinking us in a sea of surplus production that we have not yet proved statesmanlike to use to the advantage of ourselves and of the world. I decline to concur with the observers who insist that we are producing too many goods. There are 120,000,000 of us in this nation, and, as a people, we have far from satisfied the legitimate demands of a healthy and civilized folk. There is a whole world outside our frontiers in which millions upon millions of men and women are living far below the consumption level we have known and that health and civilized values dictate. If we are at all sensitive to the physical and spiritual needs of humanity, to say that we are

now or shall be for generations to come at a point where humanity is surfeited with goods and services it does not need for better living is, to me, too incredible to consider seriously.

But that we are producing more goods than the consuming millions are able to purchase is obvious. Production and consumption are seriously out of balance. There are two obvious ways to deal with this disturbed balance between production and consumption. We can slow down production by deliberate policy or we can speed up consumption by deliberate policy. I shall not attempt to disguise my conviction that to throw the brakes on our productive capacity would be a coward's policy and a social retreat. We have evolved a machine economy that can, if we will but bring a far-sighted statesmanship to its direction, emancipate the race from drudgery, lift the standard of physical well-being throughout the world, and give mankind at last leisure in which to cultivate values that lie beyond economics. But the machine economy will never do these things unless and until the leadership of industry sees to it that a larger share of the national income is shifted into the pockets of the consuming millions, and until the margin of leisure for the millions is markedly increased. And if and when the leadership of industry assumes as one of its major duties increasing the income and the leisure of the millions, it will discover that, as a by-product of this statesmanlike social ministry, it has made greater profits than ever before.

A simple and single challenge lies coiled at the heart of this depression: Will the leadership of industry prove as capable in producing civilized consumers as it has proved itself capable in producing consumable commodities? Unless it does, industrial leadership must resign itself to the certainty that our machine economy will slump into chronic depression and ultimate collapse.

The logic of events is at last proving that the basic policies that will prove best for labor are the policies that will prove best for capital and vice versa. It is at last evident that it is to the best interests of business that a larger share of the

national income shall find its way into the hands of the masses who buy consumable commodities. It is obviously self-defeating for business to get itself into the position to produce vast quantities of goods, unless, at the same time, it sees to it that there are vast masses of potential consumers ready with money to buy and leisure in which to use the goods that business produces.

In the entire history of business America, every general reduction of hours and every general rise in wages, however bitterly fought by business and industrial leadership at the time, has been followed by a fresh accession of business activity and general prosperity. It is one of the ironies of history that the very things for which labor and liberalism have pleaded through the generations, on the ground of simple social justice, namely, high wages, short hours, low prices, are now seen to be the only things that can, in the interest of the solvency of capitalism, keep our industrial order a going concern.

In the field of education, the specialist has broken down in the face of a crisis that only the broadly educated man, who can see things steadily and see them whole, could master.

In the field of industry, the machine order—which makes goods and produces wealth—has been astoundingly successful, only to find its success turned into defeat because the economic order—which has to do with using goods and distributing wealth—has not been able to make wise use of the marvellous efficiency of the machine order for the benefit of all.

By a thousand superficial tests our captains of education and our captains of industry have been successful during the decade just closed, but, in the deeper sense, they failed when faced with the crucial test of their careers, namely, the prevention of the current economic depression. And before they can again lay claim to success they must help us do two things, viz:

They must help us make our universities once more educational institutions as well as training stations for narrow specialists.

They must help us make our economic order as socially efficient in its policies for using goods and distributing wealth as they have made our machine order technologically efficient in its processes for making goods and producing wealth.

The gist of what I have tried to say tonight is that our panicky present is the result of our planless past. If we isolate any section of economic America, we find that it has been managed admirably, but if we look for general economic statesmanship, we look in vain. If we permit the present to be as planless as the past has been, if we content ourselves with hastily improvised policies to jack up morale or hastily improvised protests to provide stump speech copy for the next campaign, we shall find ourselves citizens of a fear-ridden future in which we shall be dragged at the heels of forces and fears over which we shall be able to exert no more control than we exerted over the forces that brought a bloated market to explosion in the fall of 1929.

This fear-ridden and uncontrolled future need not be. There is genius enough in America to evolve and to execute political and economic policies that will give us a future that will, in point of material well being and social enrichment, far outstrip the very real, if somewhat spotty, prosperity of the last decade. If America does not realize this finer and more fruitful future, and begin her realization of it with decent promptness, it will be either because at the top we suffer a breakdown of industrial, political and educational statesmanship or because at the bottom the people, in a moment of leaderless confusion, fanatically follows some false prophet from either the ultra-reactionary or the ultra-radical camp. It will not be because the cards of destiny are stacked against us. They are not. Every card in the deck is in our hands. It is a matter of playing them expertly.

GLENN FRANK,
University of Wisconsin.

The Chicago Plan*

ON Thursday, November 12, the Board of Trustees of the University of Chicago approved a plan of reorganization recommended by the University Senate, which consists of all the full professors. The plan was radical, for it abolished institutions and trade names that have long been familiar to us all. But it was intelligent because it frees education and research from the effects of antiquated machinery. Its benefits should be felt immediately by every student and every professor. Although it has been in operation only a week, its benefits have already been felt by the administration.

The plan removes from the academic scene the graduate school, the senior college, and the junior college. The University now consists of the professional schools and five divisions in Arts: the humanities, the social sciences, the biological sciences, the physical sciences, and the college. The college faculty is charged with discovering what a general higher education is and ought to be, for none of us is so bold as to say he knows today. All that we know now is that a student leaves the junior college after he has passed eighteen courses with the minimum scholastic average. If we are asked whether he has had a general education, we can only reply that we hope so, even though we know that as he passed course after course he forgot the one he had passed as he passed on to the next. The first duty of the college faculty is to attempt to formulate a somewhat more adequate and satisfactory definition of a general education.

What the college course of study will be, we do not know. All we know is that it will probably be very different from what it is today. My purely personal view is that sooner or later it will be simple in the extreme. I should like to see four general lecture courses, planned to last through two years, in the humanities, and the social, physical, and bio-

*Address at the meeting of the Association of High School Principals, University of Illinois, Urbana, November 20, 1930.

ogical sciences. These should be open to anybody, but required of nobody. From the lecture courses those particularly interested and qualified should be chosen for seminar work in one or more fields, continuing to attend such lectures in other fields as might appeal to them. In this way those who wished merely to learn about the various divisions of knowledge might do so in the lecture courses. Those who wished a more specific orientation and could show that they deserved it might prepare for the upper divisions and the professional schools in the seminars. If I had my way (which would doubtless be very unfortunate), I should give tool courses only to those students who might be reasonably expected to need the tools, and these would be the college students in the various seminars. Students in the lecture courses would not do laboratory work and would not be taught such things as statistics and the languages. I would make the seminars the only small classes in the college, for I believe that a university can afford such classes only for students who are especially interested and able in a given field.

Under the system as now adopted by the University of Chicago a student will remain in the college until his general education is complete, irrespective of the time or courses taken there. General examinations will indicate that he is ready to pass on, and not the multiplication of credits. Credits have disappeared as the criterion of intellectual maturity. Instead of waiting until he has gone through eighteen courses the student may present himself at any time when he and his adviser are ready for the examination that marks the end of college work. Thus a genius might leave the college at the end of one quarter, a brilliant student might leave at the end of a year, the average student might leave after two years, and the student interested in college life after four. If a student passes the general examination with distinction, he should be automatically admitted to one of the upper divisions or the professional schools. Graduation from the College without distinction will mean an honorable exit for the man who wishes only a general education.

I may pause at this point to enumerate what we consider

the benefits of this type of collegiate organization to be. The first is that it will compel us to think what we are doing. You will agree that it is far more difficult to figure out what should constitute an education and the indicia thereof than it is to pass a rule saying that after a student has been through certain work he is educated. Although university presidents make a profession of omniscience, I cannot say that we ought to think, or what the result of our thinking will be. Perhaps our second state will be worse than our first. At least, however, we shall have made the effort to apply what intelligence we have to the solution of educational problems.

In the second place, we have an opportunity to adjust the institution to the individual. Students who wish only a general education may obtain it and depart with dignity thereafter. Students who wish to be scholars or professional men may enter a scholarly and professional atmosphere at the conclusion of a period devoted to their general education, the length of which depends entirely on their own abilities. If they have an interest in scholarship, they need not lose it by being bored to death by four years of undergraduate routine.

Finally we may, if we have the intelligence, work out a sound basis for advanced study, professional or non-professional. Professional work presumably may be started at the end of a good general education. But, since we have not known what a general education was, we have allowed our desire for prestige and our need to cut down numbers to increase the years in college required of all applicants to professional schools. If a good general education can be developed, professional schools and those awarding research degrees may well consider that this is an adequate foundation for their work and may well admit the student who had it without inquiring as to the years he spent in getting it or the degrees he accumulated on the way.

This, then, is the organization of the College of the University of Chicago, and these are the advantages that we may possibly derive from it under less vivid future conditions contrary to fact in present time. The other divisions are, as I

have said, the humanities, the social sciences, the physical sciences, and the biological sciences. These divisions will award all degrees in arts, literature and science, from the bachelor's to the Ph.D. Candidates will be recommended by an entire division, and not by one department, to the joint faculty of the divisions. A student will enter the divisions when general examinations disclose his capacity for advanced work. Eventually, I hope, he will receive whatever degree he is seeking in the same way. He could then present himself for the bachelor's examination when he felt ready to try it without waiting for the expiration of any arbitrary number of years. The same would be true of the higher degrees. As far as his course of study is concerned, his program throughout would be divisional and not departmental.

The advantages of the plan are obvious. The first group of advantages results from the coordination of teaching. At present, for example, we have four introductory courses in statistics in as many different social science departments. With a division of the social sciences one should immediately take the place of four. The aim will be to develop a divisional rather than a departmental curriculum. Departments will not institute or maintain work duplicating that of other departments in the same division. Through a divisional curriculum the student will have opportunities denied him hitherto. Many departments have insisted on narrow specialization in departmental fields. A divisional course of study means that departmental requirements will have to have the approval of the divisions, thus guaranteeing to the student the opportunities offered by all departments in the division and the consequent breadth of training that many of them now lack.

A second group of advantages that we fondly hope may accrue in the upper reaches of the divisional plan is the promotion of cooperation in research. I sometimes think that in many universities the faculty club is the most important educational building. There the professor of chemistry who is interested in atomic structure may meet the professor of physics who is interested in the same thing, and the professor

of criminology may meet the professor of criminal law. Otherwise they might never meet and might pursue their intellectual roads in ignorance of each other were it not for the accidental crossing of their gastronomic paths. Under the divisional scheme we bring these gentlemen together as part of a working and planning unit where they may by constitutional means interchange whatever enlightenment they may have on common problems. If knowledge could be confined within departmental lines, the administration of universities would be much simpler. Since investigations cross these barriers, it may be best to remove them, and allow those who are doing the investigating to share their abilities and perplexities.

A final advantage of the divisional organization above the college is the atmosphere of graduate and professional study that should develop for all students in the divisions. If a graduate school seems more scholarly than an undergraduate school and a graduate professional school better than one that admits undergraduates, it is not because of the maturity of students or because of the preparation of students; it is because of the segregation of students. We all know that segregation into a serious professional group has turned many a collegiate loafer into a first-rate professional man. If, then, we can take men who have finished their general education, though they have not the bachelor's degree, and introduce them at that moment into a group that is concerned with serious study, we get for many students the advantages that have traditionally been discoverable only in graduate schools. No one can be long in university work without becoming acutely aware of the scarcity of individuals prepared to devote themselves to a life of scholarship. Although the low level of faculty salaries is doubtless in large part responsible, there is another factor at work, and that is the method and content of collegiate instruction. Many people go to college with a real and even a remarkable excitement about scholarship. Still more could be excited if they could believe that there was anything important or vital in what the scholar does. In far too many cases this present or potential excite-

ment dies in the face of the peculiarities of the American university system. The first duty of an American university is to organize itself so that a student who wishes to become a scholar will not have insuperable obstacles put in his path.

This, then, is the reorganization of the University of Chicago, and these are the benefits we hope through it to confer on our students and ourselves. The whole business is an experiment. Perhaps we have not the brains to get from it all we should. At least we feel that, if we cannot now do a better job in education and research, we shall not be able to place the blame upon our organization. In our struggles we shall hope for the encouragement and criticism of the high school men of this state. That you are concerned in them goes without saying, for it is your charges, upon whom you have lavished years of effort and attention, that become our victims at the last. What light may come to you we hope you will share with us; your cause and ours are one.

ROBERT MAYNARD HUTCHINS,
The University of Chicago.

The Cooperative Test Service

IN VIEW of the widespread interest in a recent subvention from the General Education Board extended to the American Council on Education for the administration of the Cooperative Test Service by a Committee of the Council, it may be opportune to present in brief outline the origin and present status of this enterprise.

At a meeting of one of the sections of the National Research Council in 1923 a committee was appointed to consider ways and means of acquiring and making available knowledge of individual college students, in order that their fitness for their respective vocations might be discovered in a scientific manner as early as possible. The committee in charge called a conference of representatives of fourteen cooperating universities in Washington on January 1, 1925. At this meeting a Central Committee on Personnel Procedures was appointed, consisting of H. E. Hawkes, Columbia University, Chairman, Henry W. Holmes, Harvard University, Walter Dill Scott, Northwestern University, C. R. Mann, American Council on Education. After repeated meetings in which this committee attempted to determine the best method of attack on the far-reaching and important question submitted to it, it was decided that more data concerning present-day practice in colleges and universities was necessary before any definite plan of action could be proposed. To this end the committee requested and secured a grant of $7,500 from the Benevolence Fund of Mr. John D. Rockefeller, Jr., in order that Mr. L. B. Hopkins, then of Northwestern University, might visit the fourteen cooperating institutions, with a view to determining the methods of approach in these universities to the problems involved. The result of his study was published as a supplement to the EDUCATIONAL RECORD in October, 1926, and has enjoyed a wide circulation and very stimulating influence upon personnel procedure all over the land.

Following this report it seemed evident to the committee

that the first step toward solid accomplishment lay in the direction of preparing more accurate tools for use in personnel work in schools and colleges. To this end at a conference held at West Point on July 1 and 2, 1927, four sub-committees were organized as follows:

Sub-Committee on Personal Record Card
Sub-Committee on Achievement Tests
Sub-Committee on Personality Measurement
Sub-Committee on Occupational Information

The membership of the four Sub-Committees has been as follows:

Sub-Committee on Personal Record Card.—President L. B. Hopkins (Wabash College), Chairman, Professor E. L. Clark (Northwestern University), Professor J. J. Coss (Columbia University), Mrs. Mary E. Hayes (Vocational Service for Juniors, New York City), Professor D. T. Howard (Northwestern University), Professor J. H. Willetts (Pennsylvania).

Sub-Committee on Achievement Tests.—Dean H. E. Hawkes (Columbia University), Chairman, Professor V. A. C. Henmon (Wisconsin), Miss Agnes B. Leahy, Girl Scouts, New York City), Professor M. R. Trabue (North Carolina), Professor Ben D. Wood (Columbia University).

Sub-Committee on Personality Measurement.—Doctor D. A. Robertson (American Council on Education), Chairman, Dean F. F. Bradshaw (North Carolina), Doctor Grace E. Manson (Michigan), Professor D. G. Paterson (Minnesota), Professor E. K. Strong (Stanford).

Sub-Committee on Occupational Information.—Doctor C. R. Mann (American Council on Education), Chairman, Professor W. W. Charters (Ohio State), Professor A. B. Crawford (Yale), Vice-President C. S. Yoakum (Michigan), Mr. A. L. Williston (American Council on Education).

About a year later a fifth sub-committee was added on *Personal Development.* The membership of this sub-committee was as follows: Doctor A. H. Ruggles (Butler Hospital, Providence, Rhode Island), Chairman, Professor W. W. Charters (Ohio State), Professor J. J. Coss (Columbia University), Professor C. R. Lingley (Dartmouth College), Miss Dorothy Stimson (Goucher College).

Having defined the method of approaching the question and following the organization of the various sub-committees,

a further subvention of $20,000 a year for three years from Mr. Rockefeller was requested and granted.

The various sub-committees, acting under the general supervision of the Central Committee, have produced substantial results during the three years ending July 1, 1930. The personnel of the Central Committee has been modified since its organization by the resignation of President Scott and the addition of President L. B. Hopkins, Wabash College, Professor W. W. Charters, Ohio State University, Doctor A. H. Ruggles, Butler Hospital, Providence, Rhode Island, Dean P. C. Packer, University of Iowa. During his tenure as Assistant Director of the American Council on Education, Doctor David A. Robertson served as secretary of the committee. Upon his resignation Doctor John H. MacCracken was added to the committee to fill his place.

With the advice of Professor Ben D. Wood, who has made a profound and far-reaching study of the items which should be included upon record cards both from the point of view of the statistician and the personnel official, two cards have been prepared, one for the use of secondary schools and one for the college level.* Perhaps the most important and striking feature of this card is the arrangement in terms of a time projection. That is to say, all of the items which have to do with a given year are placed in a column which is devoted to that year. Consequently, a student's college career is entirely set forth in the four appropriate columns. If, however, one reads horizontally across the page instead of vertically, it is easy to follow the progress of the student in the various particulars referred to on the card. Although the card contains many items which no one personnel officer would probably use, it is

* Full descriptions of these forms, with samples, have been published in the Supplement to THE EDUCATIONAL RECORD for July, 1928; in the *Program for a Study of the Relations of Secondary and Higher Education* (the "Pennsylvania Study"), issued by the Carnegie Foundation, 1928; and in an article on the Pennsylvania Study by Dean McConn of Lehigh University, in the *Bulletin of the American Association of Collegiate Registrars*, Vol. 5, No. 2, reprinted for distribution by the Carnegie Foundation.

perhaps desirable to have published an inclusive card of this kind rather than a simpler one. In fact, one of the most beneficial results of the studies of this sub-committee lies in the fact that taking the all-inclusive card, which has been prepared as a point of departure, scores of institutions have prepared personal record cards more exactly adapted to their own needs than they could possibly have done without the American Council card as a model.

The Sub-Committee on Achievement Tests has worked in close cooperation with those in charge of the Pennsylvania Study, partly on account of the fact that Professor Wood bore a close relation to that enterprise. Tests have been prepared on the subject matters of Economics, Government and Civics, European History, Ancient History, Solid Geometry, Trigonometry and Italian. These tests, for the most part in two forms have been published by the World Book Company and are now available for use.

Doctor Robertson, as Chairman of the Sub-Committee on Personality Measurement has labored with his associates upon a project which all recognize as impossible of solution at the present time. When the sub-committee started operations there were literally hundreds of personal rating scales which seemed to assume that one individual possessed a knowledge of those whom he was rating only slightly less intimate than that possessed by an omniscient being. On most of the rating scales no space was provided in which to confess lack of knowledge or the origin of such information as one possessed. Consequently, the most important function of the Sub-Committee on Personality Measurement has been to cultivate a critical attitude toward the device that they were attempting to develop. They have prepared what seems to be as sensible and scientific a rating scale as is possible with our present knowledge. At any rate, the information which is requested is supposed to be based upon fact rather than upon a hazy and purely subjective impression.

Doctor Mann, as Chairman of the Sub-Committee on Occupational Information, has sought to determine the method of developing an occupational monograph which may be of

interest and value to students who have the occupation in question under consideration as a possibility for their life work. Monographs on the subject of medicine, library service and banking have been prepared. Just how far it will be possible to carry this lead is at present under discussion.

The Sub-Committee on Personal Development as an exploratory operation has attempted to obtain some light on the influences that operate during the college experience to affect character development. One hundred and fifty seniors in three institutions were interviewed for two hours each by Mrs. Esther Lloyd Jones, in order to determine what seemed to them to have been worth while in their college experience. The results of these interviews have been written up and it is hoped that they will be published in connection with the report of the Central Committee on its entire accomplishment.

As the time drew near for the expiration of the three years for which the subvention had been granted the committee considered the desirability and possibility of continued work in certain of the five directions mentioned above. The membership of all the sub-committees in conference in Princeton, April 25, 1930, discussed this question as thoroughly as they could, and decided that although their interests extended in many directions, it was possible to prepare a more definite program for the preparation of achievement tests adequate in number and sound in construction than for any of the other projects.

The average member of a school or college staff scarcely realizes the amount of time and money that is required to prepare achievement tests in a sufficient number of forms to meet the demand for such tests over a term of years. Experience has shown that proper tests may most economically be constructed in five equivalent forms. The minimum steps required by good practice for producing five equivalent forms of a 200-question test are the following:

1. Survey field to be covered.
2. Construct 1,500 questions.
3. Edit these, eliminating about 300 questions by inspection.

4. Print five 240-question lists, as nearly balanced in subject matter and as nearly equivalent in difficulty as possible, by inspection.
5. Administer each of these lists to about 500 representative students, giving them in pairs, to the same students, e.g., AB, AC, AD, AE.
6. Score the 2,500 preliminary question lists.
7. Analyze the difficulty and validity of each of the 1,200 questions.
8. Choose 1,000 best questions.
9. Divide 1,000 into five balanced and equivalent tests, i.e., Forms A, B, C, D, E.
10. Administer again in pairs to insure equivalence, to test reliability and validity, to correct and complete keys, and to secure adequate norms.

The Central Committee proposed to the General Education Board the organization of a test producing bureau which should be financially supported by the General Education Board for a period of ten years, after which time it is hoped that it will be self-supporting. To this end a subvention of $500,000, extending over the ten years, was requested and granted. It is anticipated that this amount of financial support will enable the committee to prepare new type tests in the various subject matters of the last two years of high school and the first two years of college. The work of such a bureau naturally falls under three departments: first, the editorial department, which has to do with the gathering of material and the organization of this material into tentative tests; second, a clerical and scoring department, whose function it is to calibrate the tests after preliminary trials in selected schools; third, the statistical department, which should study the results of the tests in order to find out whether they accomplish the results for which they are intended. It goes without saying that preliminary to the work of the editorial department it is desirable and necessary to determine the kind of result which the tests are supposed to measure. The statistical department is not intended as a research enterprise, but merely as a technical necessity, in order that the bureau may assure itself of the quality of its own products.

Professor Ben D. Wood of Columbia University has been

appointed as Director of the Test Service. An organization has been completed with headquarters in New York but with cooperating scholars in universities scattered all over the country. It should be clearly understood that the Central Committee has no illusions concerning the scope of its task. It does not assume that tests of the new type are the only kind of examination that should be given. In fact they hold an opinion diametrically opposed to this. At the same time they are of the opinion that here is a definite and clearly thought out project which can be carried through and which will be of tremendous aid to the cause of education both in schools and colleges. There is no question that the ordinary essay type of examination, the comprehensive examination and the oral examination are all important, and probably test aspects of accomplishment which the new type examination does not touch. This fact, however, has no bearing upon the desirability of having good new type tests in sufficient number to serve the purposes of schools and colleges that need such tests. It is anticipated that the results achieved by the tests which will be prepared may furnish material for investigation and research as to the precise phase of intellectual accomplishment measured by these and other kinds of examinations.

The committee feels very keenly certain dangers which beset the enterprise for which they have taken the responsibility. The items put into a test are definitely related to the objectives of school work in the subject in question. If a test is widely used it will tend to affect very profoundly the work done in schools both in content and in method. The situation certainly demands that those who are responsible for the selection of test items must be unassailable in their standing and ready to make full and adequate defense of their choice of items in terms of as clear objectives as it is possible to frame. This involves a breadth and competency of criticism which it will be difficult to secure, but which is absolutely essential if the tests are to be useful to the extent that one might wish.

It would indeed be fortunate if we could express in definite

and exact language just what schools and colleges aim to accomplish through the medium of the various subject matters of history, mathematics, English and the rest. To find objectives for our educational endeavors that everyone would accept is an alluring enterprise, and if successful would solve many of our difficulties. If this could be done it would be far simpler to prepare tests that measure progress toward these objectives. We could in that case determine with much greater precision than we can at present precisely what any type of examination measures and what it does not measure. In that situation, however, if we all accepted the same objectives, everything would be clear, rigid and completely standardized. If the objectives were wisely selected a stabilizing influence of tremendous significance—and danger—would be developed.

One cannot help asking, however, what happens when the attempt is made to frame fixed and definite objectives in any of our usual subjects of instruction. So far as my observation or information goes it has always resulted in endless discussion leading either to a compromise "so broad that it is flat," to quote President Faunce's expression, or to dicta from arm-chair philosophers so far from actual contact with the human touch of the teaching process that they do not contain much of actual value.

In fact, like so many puzzling problems connected with our educational enterprise, it seems to come down to a matter of the temperament of the investigator. Some men are preeminently thinkers, the results of whose meditation are seriously cramped by too intimate contact with facts. Men of this stamp can think up objectives that may be stimulating, but which need checking against actual conditions before they can be adopted. Other men find their objectives by doing the job. They can follow a scent while on the run. Each type of temperament needs the stimulation and help of the other in order that the most rapid and well-directed progress may be made.

So far as the Cooperative Test Service is concerned, objectives are needed. But it must never be forgotten that we

are examining boys and girls who have been taught by teachers and texts and schools as they are, rather than as they would be in a perfect state. It is no solace to a man who has bought an ill-fitting garment to tell him that it would fit Apollo Belvedere perfectly.

The Service has many delicate questions to solve. But the extent to which it has been able to gain the cooperation of able scholars and investigators all over the land gives bright promise for a useful existence.

H. E. HAWKES,
Columbia University.

Committee on Problems and Plans in Education

THE July number of the EDUCATIONAL RECORD recorded the action of the American Council at its meeting in May, 1930, creating a Committee on Problems and Plans in Education. The considerations which led to the creation of the Committee are outlined in the same issue by the Chairman of the Council, Dean Charles H. Judd, in an article entitled "A National Program of Educational Research." The committee has been organized with the following membership for the year 1930–31: Chancellor Samuel P. Capen, Chairman; Dr. Charles R. Mann, Secretary; President Lotus D. Coffman, U. S. Commissioner William J. Cooper, Dean Herbert E. Hawkes, Dean Charles H. Judd, Dr. John H. MacCracken, Dr. Beardsley Ruml, Dean William F. Russell, Dr. Eugene R. Smith, Dr. Henry Suzzalo, Dr. Edward L. Thorndike, and Superintendent David E. Weglein.

A preliminary conference was held at Hanover, New Hampshire, August 29–31, at the time of the meeting of the Social Science Research Council and arrangements made for the calling of the first regular meeting of the committee at Briarcliff Manor, New York, November 21–22.

Twelve members of the committee were present at the two-day session. An entire day was given to the consideration of the definition of the fundamental terms "the individual," "society," and "education," and to the attempt to formulate a tentative procedure for the evaluating and classifying of projects in educational research.

A provisional memorandum prepared by a sub-committee consisting of Dean Russell and Dr. Mann was made a part of the record of the meeting in order that it might receive further study and consideration at subsequent sessions. The memorandum suggests that projects be classified in one of three great fields regarded as being coordinate and fundamental:

I. Those concerned chiefly with the human being as he grows and unfolds chiefly from within;
II. Those concerned primarily with modern life and the collective or cooperative life in which the individual must find a place;
III. The school and educational processes which help or hinder human beings in the life which they live.

Of each project the question must be asked:

a. To which of these three sub-divisions does it belong;
b. If the project is undertaken will the results fill a gap in present knowledge;
c. To what degree is the problem possible of solution by the instruments and techniques which we possess at present;
d. What would be the cost;
e. What are the best possible agencies for doing the work.

Three sub-committees were created:

1. A joint committee composed of four members appointed by the Problems and Plans Committee and three members appointed by the Social Science Research Council to study the problem of the organization and administration of state school systems. An appropriation was made to cover the expenses of meetings of the committee. The committee is as follows: Dr. A. B. Meredith, New York University, Chairman; Dr. Frank W. Ballou, Superintendent of Schools, Washington, D. C.; Professor George S. Counts, Columbia University; President George F. Zook, University of Akron, representing the American Council on Education. Representing the Social Science Research Council, Professor L. D. White, University of Chicago; Dr. Lent D. Upson, Bureau of Governmental Research, Detroit; Dr. Luther H. Gulick, New York Bureau of Municipal Research.

2. A committee to consider the possibility of organizing a cooperative investigation of the genetic series of intellectual growth with particular emphasis on the processes at the high school and college level. The committee was instructed to

communicate with all institutional members of the Council for the purpose of finding out what work in this field is already under way, and as a result of their findings to draft a plan for cooperative study of the problems in this field and to call a conference of specialists on these subjects, if deemed necessary, to assist in formulating the plan for submission to the general committee. The committee was composed of Dean Charles H. Judd, Dr. Beardsley Ruml and Dr. John H. MacCracken.

3. A sub-committee was appointed to study the impact of the present social, political and industrial organization of society on the educational processes and the educational implications incidental thereto, and to report their findings for the orientation of the committee at its next meeting. The committee consists of Dean William F. Russell, Dr. Charles R. Mann and Dr. Beardsley Ruml.

Dean Hawkes presented a report on the work of the Council's Committee on Personnel Methods, with particular reference to the Cooperative Test Service just organized with Dr. Ben D. Wood as Director, and the relation of the test service to the total problem of personnel methods. Discussion followed regarding the areas mapped out by the Committee on Personnel Methods in which no studies have yet been undertaken for lack of funds, and the committee voted that the Committee on Personnel Methods be requested to formulate an integrated plan of study of personnel problems for presentation to the Problems and Plans Committee.

A communication from the American Association of University Professors expressing a desire to cooperate in carrying out projects appropriate to their organization was presented. Three possible projects were suggested as the subjects in which the Association was at this time particularly interested: Academic appointment and tenure, research in teaching load, and training of college teachers. The committee voted to refer the communication to Dr. MacCracken with instructions to confer with the American Association of University Professors and with others interested in the

general problem of college teaching and to report recommendations on this subject to the committee.

April 11, 12, 13, 1931, were tentatively set as the date of the next meeting, the place of meeting to be determined by the Chairman and Secretary.

As stated at the annual meeting, the expenses of the Committee on Problems and Plans in Education, for at least three years, will be covered by a subvention granted to the Council by the Rosenwald Fund. It is generally agreed that this establishment of a central planning office for educational research in the American Council, where its activities are under control of the institutions themselves, is an important correlative to the increase of research activities in the Federal Government, as experience indicates that the most fruitful results of research and intellectual guidance are secured when federal agencies cooperate with voluntary agencies in the same field.

Suggestions of specific projects of research for consideration by the committee will be welcomed and may be sent to the Secretary at 744 Jackson Place, Washington, D. C.

JOHN H. MACCRACKEN,
Washington, D. C.

The Improvement of College Instruction Through Educational Research*

WHEN a present-day student of education speaks of the improvement of college instruction he may imply any one of a number of things. Reference may be to a more satisfactory selection of curricular content, to a clarification of teaching objectives, to a more accurate method of measuring student achievement, to the elimination of wasted time, to the incitement of greater interest and activity on the part of students, to a better grouping of students for instructional purposes, to a more effective organization of teaching materials, to better classroom techniques. Never does he mean that invocation of magic which academic teachers so frequently ascribe to their colleagues who essay to offer "methods courses." He knows better than do his critics the insidious beguilements of educational theorizing, and he would fly from superficiality and superstition as quickly as would the hardiest physicist.

So true is this that many men in education have all their lives avoided coming to terms with the problem of classroom techniques. They have studied psychology, or educational finance, or administration, or school organization, or comparative education, or the curriculum feeling all the while that the heart of the educational problem lies somewhere in the teacher-student relationship, but knowing also the baffling intrinsic difficulty of this central issue. Their manner of approach has been through an attack upon the marginal problems of instruction more amenable to analysis and experiment, and in this indirect way they have found plenty to occupy their attention. Here have been developed the techniques of educational investigation. About these problems has developed such educational literature as we have.

* Reprinted from Proceedings of Higher Education, Vol. II, 1930, by courtesy of the University of Chicago Press.

Despite this chariness of educationists to attack directly the problems of instruction, we are all well aware that, when we speak of the "improvement of instruction," the phrase must always denote an influence of the instructor upon their facts and skills for more effective use, are stimulated to more active search for knowledge, and extend their range of interests. The criterion of effective instruction is always to be stated in terms of alterations in student conduct. The evidence of improved instruction is ever to be found in the increase or acceleration of desirable changes in student behavior and accomplishment.

It follows from this view that if instruction is to be improved the instructor must change his own activities so that his students are more helpfully stimulated and directed—influenced, as we say. He ceases to do useless things; he does other things more helpful. This changing of his own conduct on the part of the instructor constitutes for him a process of learning. He, too, is a learner, not primarily of the subject matter which he essays to teach, although he will be that too, but of human behavior as it appears in those who make up his class. Over and beyond the materials which he sets for their learning, he must increasingly understand the ways in which this material is received by them and wrought into the stream of their mental lives.

This is not said to state something new. Rather it is intended to revive in our thinking a very old and commonly accepted proposition. It is the sole value of experience which we so generously laud as the perfecter of teaching skill that through experience a teacher learns to desist from useless activities on his own part, and does other things more conducive to student learning—does them with less waste, more frequently, and more persistently.

The present import of this well-known fact is that it identifies the point of incidence toward which all our efforts to improve college instruction must converge. Unless college teachers can and will change their conduct of teaching, no improvement of college instruction can occur. All that college administration can do in this matter is to create about the

individual teacher such influencing conditions as will suggest and facilitate desirable changes in his activities. It can do little, if anything, directly to improve instruction. Only the teacher of mathematics himself can improve the teaching of mathematics. His is the key position; his is the final responsibility for good or poor teaching. If anyone can bring to an instructor new knowledge about teaching, stimulate his interest in teaching problems or provide him with methods by which he may study his own techniques and the results of his instructional efforts, such a person may assist an instructor to self-improvement. But it should never be forgotten that genuine improvement is a process of internal adjustment and growth on the part of the instructor. Good teaching, like other forms of art, is an expression of personality and will not be accomplished through the imitative adoption of devices proffered by external authorities. The crucial question to be asked, therefore, by any one who seeks the improvement of college instruction is this: Through what means can college teachers be made more sensitive to the subtle and delicate psychological processes involved in human learning, how given a better sense of the differential values of curriculum content; how stimulated to a greater interest in student welfare, how informed as to the varying effectiveness of their own instructional activities? Such a question strikes deep into the structure of the teacher's own personality, and it is in this fundamental realm that we must seek for genuine improvement rather than in the surface accretions of teaching tricks.

It may be at once admitted that neither educational philosophy nor educational science has any guaranteed prescription to accomplish the purpose thus described notwithstanding the ambitions of some educationists or the fear of the academicians. There are doubtless many and diverse routes to such a happy end, and in the long history of college teaching they have all been traversed by one or another finally competent individual. Though we have in mind to propose a definite program of attack upon the problem of instructional improvement, it is done in the clear realization

that it may cherish no claim to exclusiveness even though it aspires to a kind of superiority.

It is the thesis of this discussion that cooperative research on the part of a college faculty into the problems of college education may eventuate in decided improvement in college instruction. In support of this proposition, I have been asked to detail certain experiences which we have had at the University of Minnesota in recent years. For almost a decade the writer has been chairman of an all-university group appointed by the president of the University and called the Committee on Educational Research.

Its membership of a dozen persons has been largely drawn from the deans of the several colleges and a small group of interested professors, all of whom accept their places on the committee voluntarily. The personnel of the committee has changed only by resignation from the University. The committee's status is extra-legal, as it were, holding no allegiance to any college administration nor to any faculty. In the years of its existence the committee has carefully abstained from the assumption of any administrative obligations. Its function has been to study the problems of the University and to publish its findings. Such changes as these results have implied have been left to other agencies for execution.

It would not be true to say that in the beginning any of us anticipated all of the helpful relationships which have grown out of the work of the Committee. Our initial efforts were timid and sporadic. As projects developed out of the discussions of this Committee, it was possible to enlist the aid of individual instructors in the work of subcommittees. As these committees have been formed they have usually contained one or two men from education and psychology and from three to ten instructors from other departments of the University, the majority always lying with the non-education faculties. The individuals have been drawn from the professional groups as well as from the liberal arts college. The names of cooperating departments will give a vivid picture of how widely interest has been distributed. They are as follows:

Administration
Agriculture
Anatomy
Biochemistry
Civil Engineering
Dentistry
Economics
Educational Administration
Educational Psychology
Elementary Education
Engineering
English
History
Home Economics
Journalism
Law
Library
Marketing
Mathematics
Mechanics
Municipal and Sanitary Engineering
Botany
Business
Chemical Engineering
Chemistry
Nervous and Mental Diseases
Nutrition
Obstetrics and Gynecology
Pathology
Pediatrics
Physical Education
Physics
Physiology
Physiological Chemistry
Plant Pathology
Political Science
Psychology
Romance Languages
Secondary Education
Sociology
Speech
Surgery
University Health Service
Zoology

The list of projects will give an idea of the area over which our activities have ranged. They are:

1. Student Personnel. (More than a score of separate studies.)
2. The Efficiency of Instruction in Classes of Different Sizes.
3. An Analysis of the Marking Systems in Vogue at the University of Minnesota.
4. The Educational Value of Extra-Curricular Activities of University Students.
5. Alumni Contacts.
6. The Mental Hygiene of College Students.
7. Dissemination of Research Information.
8. Vocational Guidance for Women.
9. Training for Outdoor Leadership.
10. The College Teaching of Science.
    (*a*) Laboratory Instruction in Human Anatomy.
    (*b*) The Value of Laboratory Instruction in Human Physiology.
    (*c*) The Value of Laboratory Instruction in College Physics-Mechanics.

(*d*) The Effect of Class Size in College Physics—Heat.
(*e*) Some Determinants of Achievement in College Physics—Magnetism and Electricity.
(*f*) A Study of Prognosis in College Physics.
(*g*) A Study of Prognosis in Human Anatomy.
(*h*) Laboratory Instruction in College Chemistry.
(*i*) The Value of Prerequisite Courses in College Botany.

11. The College Teaching of the Social Sciences.
12. The Reading Problems of College Students.
13. Comparative Scholastic Standing of Athletes.
14. Prerequisite Courses.
15. Student Self-Appraisal.
16. Cooperation in the Land-Grant College Survey.
17. The Characteristics of Superior College Teachers.
18. Instruction in Clinical Medicine.
19. Freshman Failures in Mathematics.
20. Problems of Student Employment.

The spirit of the Committee's work has been one of inquiry. Here is an important problem needing investigation: the best possible scientific techniques should be used in its solution; new methods must be invented if necessary, and the study carried through to a point making it worthy of publication as a valuable contribution to our knowledge of college education.

It is clear that only a portion of the projects listed here have any obvious contingency upon the problems of college teaching. There is ample material, however, to exemplify the thesis which has been advanced. I shall choose for such illustration from completed and published studies. It will be convenient to present the data in refernce to certain subsidiary queries anent the improvement of college teaching.

Is it useful to a college teacher to have a clear perception of the degree to which his students acquire the material he essays to teach them? If it is, then our studies have made a substantial contribution to the improvement of instruction in the University. First reference may be made to studies on the effectiveness of instruction in classes of different sizes carried through largely under the direction of Professor Earl Hudelson. This comprehensive investigation, now in book form, has already received such wide publicity as to obviate detailed discussion here.

It involved fifty-nine fully or semi-controlled experiments involving 108 classes under twenty-one instructors in eleven departments in four colleges of the University of Minnesota. The experiment involved 5,879 students—4,025 in large classes and 1,854 in small. Direct man-to-man comparisons were made upon 1,288 pairs of students, carefully matched as to intelligence and scholarship. The final criterion was student achievement as measured by tests and examinations most of which were objective.

In forty-six of the experiments, or 78 per cent, a more or less decided advantage accrued to the paired students in the large sections. Only in the remaining thirteen experiments, or 22 per cent, was there any advantage in favor of the smaller classes. At every intelligence level the paired students in the large sections excelled their mates in the small. Except at the very extreme, where results favored the superior students, the relative gain in achievement was no greater for the higher levels of intelligence than for the lower. It would seem that except in the case of a few exceptionally capable and zealous students, there is considerable waste of intelligence in both large and small classes. At every scholarship level the paired students in the large sections outstripped their mates in the small. The excellent students profited somewhat more from large classes than did their less conspicuous classmates. Large classes seem to have spurred every type of student to higher levels of attainment.

Conclusions.—"Since small classes, other things being equal, greatly increase cost of instruction, they must be justified on other grounds. In the light of the consistent results of this investigation, it would seem that it will be extremely difficult to justify them on the ground of superior student achievement." [1]

Our concern on this occasion relates not to the merits of the class-size controversy but rather to the influence which this extended investigation has had upon the character of educational thinking in the University community. As this investigation proceded, one man after another was forced to

[1] Earl Hudelson, *Class Size at the College Level*, pp. 256–75.

revise his judgment about the usefulness of small classes. This, while important, was less significant than the resulting caution induced in college teachers concerning others of their cherished illusions. Many of these instructors have sought to apply in part the methods of this study to other problems with a resultant clarification of the results of their own teaching.

Is it useful to a teacher to know in accurate terms the degree to which students retain learned knowledge?

In our eagerness that students acquire the content of or courses of instruction, the facts and principles that we set before them, we college teachers are prone to overlook the fact that forgetting is quite as normal a process of the human mind as is the fact of learning. Even with the best of intention and without dereliction as to study habits students find it impossible to retain all that they read or hear and for the moment acquire. The peak of attainment which characterizes the assiduous student at examination time is always much higher than it is at any subsequent period, so easily does nature surrender impressions of a complex and slightly imbedded sort. The facility with which learned material slips away we find it hard to realize, and our teaching proceeds as if learning without forgetting were the whole of the educational process.

Although the phenomenon of forgetting is of the deepest moment to educational procedure, it has been given but little scientific study and almost none at the college level. As a consequence we blunder in our methods and our judgments, blindly striving against natural forces that we should make our allies, or, at least, not treat as perverse enemies. One of the commonest results of our ignorance is the tendency to expect that students remember far more than they do from the courses which they have previously studied. We proceed with course X as if the student were really in possession of the material which we assume was given in course pre-X. In time we discover that this is not the case and then realize that much of our own instruction has gone astray because of our false assumption. Again, in our own teaching we fail to

realize how little that we offer the student he will really acquire in any permanent form because he will forget our instruction just as he did that of the instructor who preceded us. Some appreciation of this phenomenon we should all have, and some objective knowledge concerning it should be accumulated in reference to all our courses. A small contribution to the problem has recently been made by Dr. Palmer Johnson, a member of our staff. With his permission, I shall present certain of his data at this point.

The problem upon which Dr. Johnson worked is concerned with the nature of prerequisite courses. Specifically he investigated the relationship of courses in elementary botany to sequent courses, particularly to courses in agriculture and forestry. As a part of this study he found opportunity to study the permanence of learning in elementary botany. The Department of Botany had for some time been measuring the achievements of its students by means of objective examinations given as the final examination at the close of each college quarter. For the year 1926–27 the total for the three quarter examinations amounted to 587 different test items. These items covered, as did the content of the course, the subjects of comparative morphology, histology, algology, cytology, morphology of flowering plants, mycology and physiology. The test items were in the form of true-false and completion questions.

From among these 587 test items Mr. Johnson selected 265 items for a re-test examination to be given to the same students at the opening of the Fall Quarter of the year following that in which they had taken the course in elementary botany. By very careful and somewhat elaborate statistical studies he determined the measuring value of each of these items and combined them in an examination of two hours length. The students to be tested were to be found in sequent courses in forest mensuration, silvics, agricultural biochemistry, phytochemistry, soils, fruit growing, principles of genetics, plant pathology and farm crops. Between the time of the re-test and the dates of the initial examinations there had elapsed three, six, and nine months for the several parts of the test.

The study sought to give answer to the question, "How much of what students know on a final examination in elementary botany do they retain for a period of three, six, and nine months?"

All of us would expect considerable forgetting over time intervals as long as these, but few of us are prepared to learn that the loss of knowledge is as great as it is. The mean score at the close of the course was 207.4 points; three months later the same students scored 117.3 points, thus suffering a loss of 43 per cent of what they knew at the end of the course. For another group of students the end of the course score was 141.8 and six months later it had dropped to 74, showing a loss of 47.8 per cent.

By the further courtesy of Mr. Johnson I offer here two figures graphically portraying these results. Figure I shows for each of twenty-four students a picture of what he was able to do in immediate recall, the upper bar; and his reduced attainment after the lapse of time, the lower bar.

Figure II gives the median scores and interquartile ranges on the 265 items examination for pre-test, immediate recall and delayed recall at three, fifteen, and twenty-seven months after completion of the one-year course in elementary botany.

It appears that the normal retention of the amount learned in elementary botany is but little more than 50 per cent. Almost half of the hard earned acquisition has disappeared within a period of from three to six months. When one interprets these data, it must be borne in mind that the students tested had elected botany and had elected to do their major college work in fields for which botany is regarded as a genuine prerequisite. They can hardly have been taking it as an indifferent means of earning college credits. We may, therefore, presuppose as real an interest in the subject as college students are likely to show in any beginning course.

The data reported in Mr. Johnson's study are too restricted for any broad generalization in the matter of college instruction, and it is due him to say that he offers no such escape from the laborious task of further investigation. The sub-

stantial character of what he has discovered is of sufficient moment to give us pause in some of the assumptions commonly made by college teachers. You are teachers of second year courses. What do you expect your students to know of the work of the first year when they come to your course? Have you any reason to believe that your assumptions are justified by the facts, or that they are even in reasonable conformity to the essential nature of the human mind in its learning and forgetting aspects? What guaranty do you offer that what students learn from you will become a permanently useful bit of knowledge or skill? Are you reasonably certain that you are not making assumptions of knowledge too great and thereby lessening the effectiveness of your own teaching? The obvious reply to all such questions is the admission of ignorance unless you possess some power of devination withheld from the mass of college teachers or unless there are researches in the lietrature which I have been unable to locate.

One safeguard against forgetting is the practice of relearning and over-learning commonly employed by good teachers in all the fundamental processes of education. It is not enough that a student give just sufficient attention to a fact or a bit of skill that he may reproduce it on examination day. A fact which hovers just above the threshold of memory at one moment will likely be below that threshold in a few hours, and much below it in the course of a few days. If the fact is to be irrevocably fixed in memory, it must be brought back again and again through a long period of time, relearned, if necessary, and over-learned certainly, lest it subtly steal away from the grasp of the all too-plastic nervous system.

Some of this relearning should obviously be directed by the instructor who first presents a fact to a student. If the fact is genuinely important, then he must guarantee to the student the possibility of repeated and frequent contact with it. It is his obligation to set the instructional stage so that the essential repetitions shall occur. It is not enough, for instance, that the teacher of anatomy shall present the essential facts

of body structure through the lecture and the laboratory. He must provide for the repetition of these facts until they are wrought into the memory of the student so that the lapse of time will not efface them.

Just here I would say a word concerning the distributive obligations of instructors in sequential courses. A very common plaint of instructors in the later courses of a sequence is that students are illy furnished with the assumed contents of previous courses. I sometimes wonder that this type of criticism is so often in the reverse order, for, in the field in which I am most at home, the judgment would seem quite as reasonably to lie in the opposite direction. The implication is all too frequent that the instructors in these prerequisite courses have done their work badly. This may often be true. But may it not also be true that the instructors in the later courses have an obligation that stretches backward to courses previously taken? Thus, is it not fair to expect that teachers of pediatrics will utilize in their instruction all that the teachers of anatomy, and physiology, pharmacology, pathology, zoology, chemistry, physics, and mathematics have labored to provide the student of pediatrics. Unless the teacher of pediatrics calls up in his instruction all the rich body of factual knowledge and principles taught by the laboratory courses, it will, of course, have been taught in vain. To put the matter differently, the teaching of anatomy is not the business of the instructor of anatomy merely. To be sure, his is the initial task; but the successful fruition of anatomical teaching is the work of the whole series of instructors whose contact with the student follows his. Relearning again and again the essential facts of anatomy in varied and changing contexts, the student may come in time to be their master, his knowledge the outcome of many instructors through several years.

Is it useful for a college teacher of elementary science to have a clear understanding of just what the individual laboratory work of a student adds to his possible acquisitions from lectures, demonstrations, quizzes, and readings? May I first

quote upon this matter one of my colleagues, Dean E. M. Freeman, himself a scientist of distinction.

Since the scientific method has been so universally accepted, it has also been quite generally taken for granted that all of the scientists' activities are equally sound in value —a most unscientific conclusion. Our science teachers in colleges and universities have a dual rôle: they are, first, scientists and, second, teachers. Do they apply the same scientific method to their teaching that they use in their investigation in science? Have they an experimental attitude toward classroom procedures? There is not much evidence that this is the case. Certainly the published scientific experiments are few in number.

Perhaps the best illustration of this anomalous situation is found in the commonly accepted use and the prevailing estimate of the value of the laboratory method in the teaching of science. Now the laboratory method has been a most effective one for advancing our knowledge in the sciences. It is unquestionably the foundation stone of scientific investigation. But does it necessarily follow that success in the teaching of science can only, or even chiefly, be obtained by the laboratory method? That such a method of teaching science is actually superior requires scientific proof.

Modern conditions in our colleges and universities have brought rapidly increasing demands on the time and resources of teachers of science. The tremendous expansion of human knowledge has increased and complicated the curricular requirements of colleges. Large bodies of students and necessary economies in administration and teaching resources call for close scrutiny of expenditures and the greatest possible efficiency. Science teachers are becoming acutely aware of the fact that savings in time and resources gained through cheaper and more effective teaching may leave greater opportunities for research.[2]

In keeping with this view, a number of our best teachers in science have cooperated in experimental studies of the use-

[2] Archer Willis Hurd, *Problems of Science Teaching at the College Level*, Introduction, pp. 1–2.

fulness of the laboratory. One such study, by Dr. Victor Noll, covering three years of investigation in the field of chemistry, has now appeared in book form. The method was that of parallel sections, under controlled conditions, with the number of variables reduced to the lowest possible number. From year to year the method was varied to test out different factors. The achievements of students were measured in numerous ways and always by reliable objective tests. The results of the experiment can best be given in Dr. Noll's own words:

When two groups were compared, one of which had had five hours of laboratory work per week, the other having had three hours of laboratory work and two hours per week of outside reading on assigned topics in chemistry, the former group showed consistent superiority on all measures of achievement used. Although none of these differences was certainly reliable, several (particularly those brought out by TCA scores) were almost three times the standard error of the difference.

Comparisons of the two groups, one having five hours of laboratory work per week, the other having three hours of laboratory work and one hour of recitation or oral quiz per week, showed the latter group to be superior to the majority of cases, although never by a significant amount. These two groups were studied over a period of four quarters of instruction in chemistry, two quarters being in general inorganic chemistry and two quarters in qualitative chemical analysis.

Comparisons of two groups, one having five hours of laboratory work per week, the other having three hours of laboratory work per week, showed the former group to be consistently superior in mean achievement and almost as consistently the less variable of the two groups. None of these differences proved to be significant. Because of the presence of certain other factors not held constant, the cause of this superiority is left somewhat in doubt. Available data on the effect of greater interest in the subject of chemistry indicate that the superiority of the five-hour laboratory group may be due as much to the factor of interest as to the additional laboratory work.

Comparisons of groups supposedly differing in interest or motivation for the subject of chemistry showed the group majoring in chemistry to be consistently superior in achievement as measured here, although none of the differences was certainly reliable.

As far as any measures used in this study are concerned, two hours of laboratory work out of five per week do not seem indispensable. The fact that students can be deprived of these two hours without significant loss would appear to be rather important evidence on this point. As for substitutes for laboratory work, of the two that were tried, recitation or oral quiz seems to be a fairly profitable substitute, but outside reading does not. It may be that a different plan for the outside reading or a different selection of topics would show results different from those found here.

Oral quiz and recitation seemed to be somewhat more effective than laboratory work during the experimental period, and apparently the salutary effect carried over to sequent courses. This seems to be a rather important fact from the administrative point of view. It needs further experimental verification before being accepted unqualifiedly.

With two of the experimental groups compared, a follow-up study was made of the achievement of these groups in sequent courses in chemistry over a period of two quarters. There was no evidence in this study to show that the group that had been given one hour of recitation in place of two hours of laboratory work had lost anything because of this substitution.

I shall give one further illustration, this time in the field of curriculum revision. For many years we have offered in the College of Education a group of courses required for all prospective high school teachers. These courses amounted to a requirement of twenty-five quarter credits. About six years ago, one of our instructors, Dr. W. E. Peik, undertook an investigation to determine the usefulness of this requirement. He secured all the texts, syllabi, reading lists and examinations used in all the courses and analyzed the material into small items or instructional units. From this analyzed data he constructed a checking list of 814 items. These were then examined to discover the instructional time devoted to each, the cases of duplicated and recurrent treatment, the sequential arrangement, and the answers to other problems. Finally, he submitted the complete list of items in printed form to several hundred alumni who had had the entire offering in our institution. He sought alumni reactions upon five points. Do you remember studying this topic? Has it been of prac-

tical use to you in your work? Has it been useful in your educational thinking? Do you recommend that it be omitted from the requirement? Do you advise expanded treatment?

The results of this investigation comprise six large typewritten volumes now on file in our offices. The condensed result and method appear in a single printed volume. On the basis of this study we have already made important changes in this curriculum and others will follow.

The method of Dr. Peik, with some enlargement, the writer has applied to the whole subject of psychology. Using an analysis of fifty texts, and with the cooperation of our colleagues, we have compiled a checking list of 2,584 items or topics in psychology that may be used for instructional purposes. There are many uses for such a list, but the selection of curriculum content and the orientation of adequate examination procedure are among the most important. The list has already been used with four hundred college Juniors entering our College of Education in September, 1929. These students are supposed to have had already an introductory course in psychology. On entrance to educational work they were asked to answer certain questions regarding each item in this list. Among other things they were asked to indicate if they remembered having studied the topic and, secondly, if they now understood it sufficiently well to explain it on an examination should they be asked to do so. The responses are illuminating. The data which were divided into groups based upon the institutions in which the junior college work was done show distinct institutional emphasis although there is a surprising range of checked items in every case. More interesting, however, is the student's own discrimination between his memory of once having studied a topic and his assurance of present ability to explain it. Roughly, about 33 per cent of the topics were marked as remembered, while the figure for present understanding is only 13 per cent. The meaning of this marginal 20 per cent of vague and hazy memory is not alone of theoretical interest but a very practical concern of teachers of psychology. However, it is but one of

scores of problems that bristle forth from the pages of tabulation in this study.

One other use we have made of such a list, namely to analyze textbook content.

Three texts, "Psychology for Students of Education," by Gates, "Educational Psychology" by Starch, and Woodworth's "Psychology, A Study of Mental Life," have been checked page for page against the original list and against the combined judgment of instructors. All of these books have wide use in introductory psychology courses for teachers.

The results of this checking reveal: (1) The emphasis differs from book to book. One test devotes 87 pages to instinct and emotion; another, only 12 pages. One allots 99 pages to the nervous system; another only 7. The causes of individual differences occupy 15 pages in one text and only two pages in another. One gives 31 pages to animal behavior; another gives none. Statistical techniques fill 22 pages in one book and are omitted in another. (2) When set alongside expert opinion as to what should be taught, the contents of the several texts reveal varying adequacies. The psychology of play is judged important by 95 per cent of respondents; one text gives it two pages, another one page, and the third omits it altogether. Eighty-five per cent regard memory as important. One text gives it 14 pages, another 6 pages, and the third none. This study should be extended to cover many texts, and, if handled chronologically, would reveal trends in instructional emphasis through the period studied.

One further extension of the checking list technique we are now making in the field of clinical medicine, but explication of this must be omitted. Nor does time permit the elaboration of experiments in the teaching of physics, of mathematics, of German, of English, of law, of industrial chemistry, of the attempt to improve the reading abilities of students the exploration into the causes of student failure, and a score or more of studies in the measurement of student abilities, the construction of reliable and valid examinations and the analysis of the trait of superior college teachers.

However important may be the factual results of these in-

vestigations, they do not constitute the major significance of our endeavors in collegiate educational research. This lies in the altered and altering attitude of the university community toward the understanding and solution of college problems. Sad as it may seem, we must reckon among the serious obstacles to the improvement of college teaching an indifferent, if not hostile, attitude on the part of many college teachers. They simply accept their present teaching competence as adequate and are irritated if it is suggested that their ways may be changed for the better. Numerous influences contribute to this state of mind.

In the first place, it must not be overlooked that few men in any field ever strive for the highest excellence, but are, rather, content with comfortable mediocrity. In the sheltered and non-competitive conditions which surround teaching in American colleges, the external urges to high competence are far from effective.

In the second place, the academic world in America has rather definitely made known its judgment that teaching is second in importance to scholarship, that it ranks definitely below educational administration. With exceptions so rare as to create wonder where they occur, its prizes, its high ranks, its honorary degrees, its lucrative salaries go to presidents and deans, to its specialized scholars, its men excelling in research. A college president will flame with enthusiasm about the importance of college teaching and then will bribe an excellent college teacher into an administrative position by a 30 per cent increase in salary and additional perquisites of office. The difficulty of urging men whose only claim is excellence in teaching and service to students to the highest academic recognition is well known and is not confined to a single institution. The influence of this situation upon college teachers in general, and upon young men in particular, is to make them think of teaching less highly than they should, as something second rate at the most.

A third influence contributing to restrictive attitudes on the part of teachers is the easy emphasis upon dullness in students. If students are dull, they do not learn; it is easy for

an instructor to reverse this formula and to say that if students do not learn, it is because they are dull. Such free association in the teacher's mind makes self-excuse a virtue rather than a sin. Thus a teacher who fails 50 per cent of his students can without self-reproach transfer the blame for such wide devastation to their previous training and to deficient human nature.

A fourth factor making for a *laissez faire* attitude on the part of instructors toward teaching is ignorance of instructional results. No teacher may have more than a partial comprehension of what students acquire from his course. He may over-judge or under-estimate their acquisitions, but educational science has not yet given him a complete and accurate technique for determining the results of his own efforts in terms of student growth and changes. Because of this deficiency, he is continuously in the unhappy state of judging his own teaching competence in ignorance, often wrongly without doubt.

Admitting that there are these and possibly other factors contributing to an indifferent attitude that tends to insulate the teacher from effective stimuli to his own improvement, it must still be said that no good college can tolerate such an attitude indefinitely. While in this state no college teacher will make conscious effort to improve his work, nor could he well do it if he tried. Wherever this outlook upon the problem of teaching is found, the problem of its alteration protrudes as a first and most important matter to be considered. Nothing more definitely conduces to a changed attitude than fair and unbiased research into mooted problems, the cooperative inquiry for factual material bearing upon questions at issue.

While we would place this changing attitude toward college problems as a first fruit of our research endeavors, we are also slowly creating a body of new literature concerning college education, a literature based upon the experimental method and containing factual data. Eight books have already appeared from the University of Minnesota Press;

others are in process of publication.[3] In addition to these major publications there have been a score or more of journal publications. While no claim is made that any of these publications gives the final word upon the matters with which they deal, it is certain that future students of these problems must for a long time give serious attention to the data they contain. Could we have twenty-five years of equally productive work at Minnesota and at other institutions, the whole character of educational discussion in the college field would shift to a new level, the level of factual information and of scientific method.

To be sure, this shift would be a painful process for some of us. We could no longer dispose of profound educational matters in the Phi Beta Kappa orations or the inaugural addresses of itinerant college presidents, those academic counterparts of Independence Day political science. The free flow of educational theorizing would suffer the painful limitation of being hampered by facts but who doubts that such restriction would be a distinct gain to our college students even though it make academic shades less alluring to certain types of present day college professors?

What we have been trying to do at Minnesota other insti-

---

[3] "College Problems Series": F. Stuart Chapin, *Extra-Curricular Activities at the University of Minnesota* (1929); Earl Hudelson, *Class Size at the College Level* (1928); Archer Willis Hurd, *Problems of Science Teaching at the College Level* (1929); Palmer O. Johnson, *Curricular Problems in Science at the College Level* (1930); Victor H. Noll, *Laboratory Instruction in the Field of Chemistry*; W. E. Peik, *The Professional Education of High School Teachers* (1930); Earl Hudelson (editor), *Problems of College Education* (Contributors: E. M. Hopkins, L. D. Coffman, M. E. Haggerty, A. J. Klein, E. C. Elliott, F. Engelhardt, D. J. Cowling, R. R. Price, G. S. Ford, L. V. Koos, J. M. Wood, D. A. Robertson, R. M. West, J. B. Johnston, E. H. Wilkins, D. G. Patterson, W. S. Miller, S. Blanton, F. M. Rarig, H. S. Diehl, A. D. Blitz, F. S. Chapin, E. Hudelson, H. A. Erikson, E. M. Freeman, C. M. Jackson) (1928).

In Press: John E. Bohan, *Student's Marks in University Courses*; Alvin C. Eurich, *An Experimental Study of the Reading Abilities and Disabilities of College Students;* Alfred Victor Overn, *Indices of Supply and Demand of Teachers in Minnesota*; James Greenleaf Umstattd, *Student Self Support at the College Level.*

tutions are doing in like or different ways. Published material accumulates from many sources, and there are few colleges that could not use this means of instructional improvement to their own advantage.

What do the colleges now have as capital in beginning a program of collegiate educational research? The first item of importance to be noted is that every college has a plant in which all the basic problems to be studied exist. Even the smallest college has its student body, its curriculum, its methods of instruction, its staff, its buildings, its means of support, or the lack of it, its problems of control and direction, its alumni and its interested public. Wherever a college student treads, there arise all the basic educational problems. While certain problems are intensified and complicated in the larger institutions, it is also true that the smaller colleges fairly reek with issues about which little authenticated information is available, and college practices prevail for which there is little or no factual support. It is also true that many of these matters are more easily studied in the smaller and simpler environments. The simplification of experimental conditions is an ever-present drive in controlled investigation, and in some respects the smaller college would seem made to order for the scholarly study of college problems.

Let us note, therefore, as our basic institutional resource for investigation of college education, the existence of the plan from which the problems of college education arise. In this respect the developement of research in the college has an obvious advantage over such endeavors in the elementary and secondary school fields. When college professors of education have sought to examine the problems of the lower schools, they have had to go outside the college walls, to make contacts with an alien administration, or, barring this, to establish, at great expense, laboratory schools on the campus. Diversely, in the study of the college problem the whole machine —the investigator and the thing to be investigated—are under one organization and within the narrow geographical limits of a single campus.

The second resource for the study of college problems is

the presence in the institution of men and women trained in methods of scientific investigation. We may be dealing here with a less universally present factor than in the matter just discussed, but the probabilities are that most colleges are richer in this respect than they may at first think. Experience testifies that, once the idea of investigating college problems arises, aid will be frothcoming from unexpected sources. College presidents and deans are continuously plagued by unsolved problems, and in some cases they have been able to save the time from routine performance to search for the facts upon which wise decisions may be made and constructive educational policies developed. It is quite probable that more of them could do so if the importance of such a line of action should become clear to them. Much depends upon just this clear understanding of the importance of collegiate educational research.

Much, also, depends upon the resolute will of the administrative officer to defend his own intellectual alertness in regard to the understanding of his own problems. The spirit of the dean who said, "I'll be damned if I'll surrender to routine; I am going to study my job as well as perform it," is widely needed, and evidence increases to show that that spirit is growing. An administrative officer with this outlook will add his own mite to needed knowledge, but he will also do something of vastly greater moment. He will make his institution habitable by scholarly students of educational problems and will generate in his faculty a sympathy with educational research. He is likely, further, to find that some members of his staff in the strictly academic fields also decline the "damnation of routine," and themselves set about the examination of their own practices with a consequently increased intellectualization of the tasks which they daily perform, possibly with an enlargement of professional knowledge.

Two reasons prevail for the encouragement of a responsive interest on the part of the academic faculty in educational research. In the first place the faculty is the responsible, and,

in the end, the only effective agent in the improvement of college education. They who are only students of education can, at the best, do little but produce new facts and frequently they can do this only with the cooperation of academic teachers. The latter alone are in a position to make new facts useful in college improvement.

The second reason is even more important, namely, that many of the methods of research useful in the study of education have had their origin and their greatest development in strictly academic fields. Education has done less than some suppose in the creation of new scientific methods but has levied extensively upon the devices and methods of other fields of investigation. This point may be emphasized by an outline of the currently used methods of educational research prepared by the writer with the assistance of his former colleague, Dr. W. C. Olson.

This outline is as follows:

METHODS USEFUL IN EDUCATIONAL RESEARCH

1. Documentary
   a. Historical
   b. Legal
   c. Analysis of current literature
   d. Textbook analysis
   e. Institutional records and reports
   f. State records and reports
   g. Federal records and reports
   h. Catalogs
   i. Courses of study
2. Questionnaire
   a. Fact
   b. Opinion
   c. Simple information
   d. Variable verbal response
   e. Yes or No
   f. Checking
   g. Ranking
   h. Rating
   i. Weighting
3. Rating scales
   a. Graphic (cross on the line)
   b. Order of merit ranking
   c. Man to man comparison
   d. Scale sample comparison
   e. Range of values
   f. Score card
   g. Others—
4. Personal interview
   a. Prepared questions
   b. Unstandardized
   c. Trained interviewers
   d. Untrained interviewers
5. Description and analysis based on
   a. Uncontrolled observation
   b. Controlled observation
   c. Stenographic reports
   d. Verbal analyses
6. Survey
   a. Population
   b. Buildings
   c. Finances

- d. Organization and administration
- e. Teaching staff
- f. Pupil progress
- g. Curriculum
- h. Educational results
- i. Others—

7. Case method
   - a. Individual history
     - (1) Health
     - (2) Social
     - (3) Educational
     - (4) Economic
   - b. Individual examinations
     - (1) Medical
     - (2) Psychiatric
     - (3) Educational
     - (4) Psychological
     - (5) Family history

8. Experimental
   - a. Laboratory
   - b. Classroom
   - c. One group
   - d. Equivalent groups
   - e. Rotation groups
   - f. Learning
   - g. Physiological
   - h. Psychophysical
   - i. ——

9. Bases for equation of groups
   - a. Random selection
   - b. General intelligence
   - c. Status in experimental trait
   - d. Socio-economic status
   - e. Marks in—
   - f. Educational tests—
   - g. ——
   - h. ——

10. Mathematical formulas

The manner in which these methods shoot across the intellectual interest of a college faculty is fairly clear from the mere listing of them. Our Minnesota experience has given us copious illustration of their pervasive character. At one time or another during a five-year period we have had the assistance of men and women from many teaching fields, who have enriched our understanding, not merely of the problems to be studied, but also with clear perceptions of the applicability of methods which they knew better than did we. The individual departments have been given earlier and it should here be stressed that inquiring minds are not confined to any college or university department.

To be sure, some members of a college faculty are more closely in touch with methods useful in educational research than others are likely to be. Among these we may place first the psychologists. The content of currently taught psychology is largely a development of studies made during the past thirty years. It still bears the marks of the experimental method upon it, often the crudities and partiality of a rapidly changing body of knowledge, but, also, it is redolent

with the spirit of investigation. Among the more than seven hundred psychologists listed in the 1928 Year Book of the American Psychological Association more than half indicate an interest in education. Two hundred and six are teaching courses in education and educational psychology, and 238 name these and related matters as their fields of research. If we couple this evidence of interest with the obvious pertinency of the methods of psychology to the study of educational matters, it would appear that here exists a resource widely distributed among colleges for an attack upon the problems of college education, although it would be excessive to claim that all psychologists are assets in this endeavor.

It would be gracious to speak with equal enthusiasm about the possible services of the sociologist, since it is obvious that many of the problems of college education are essentially social in character. The sociologists, however, have made less progress in the adoption of dependable methods of educational investigation than the possibilities and importance of social study warrant. Genuine helpfulness from this cource, already too long delayed, appears to lag except in so far as the methods of the older disciplines are being appropriated by the sociologists.

There is ample ground for belief that the situation is changing. Within the field of sociology itself there is rapidly growing up a genuine interest in the scholarly investigation of social problems by the methods of science. The number of persons so interested is steadily growing, with many recruits among the more recently trained men, and the body of literature from this source is inceasing in volume and quality. The usefulness of an investigator who is sensitive to the social aspects of college education and equipped with the technical training for social research is undoubted. It is a pleasure to acknowledge in this connection the cooperation which we have received on numerous educational studies at Minnesota from Professor F. Stuart Chapin, and in particular, his leadership in the study of the extra-curricular activities of college students.

One would like to say in this connection that the educationists on the college faculty are an unfailing source of aid in the study of college education. Unfortunately, this seems not to be the universal situation. In fact, in some cases, sober judgment ranges them on the side of liabilities rather than elsewhere. The causes for this condition vary. Lack of ability and effective training, and unwarranted presumption of competency on the part of teachers of education, as well as prejudice among academic teachers, play their part. Wherever the educationists have met rigid standards of high scholarship, have proved themselves good teachers and have been wise in service and cooperation, the way is opened for all the skill which they may offer in the study and control of the college problem. In many places they have become, as they should be, the leaders in such endeavor.

It will not be out of place to utter here a useful caution. In the first place, the speaker believes that educationists can best approach the college problem by the way of research rather than by way of didactics. From the viewpoint of sound educational knowledge, the college is a relatively new field. Most of the serious study bearing upon its problems is a product of the last decade, and is antedated by a generation of research in elementary education and to a somewhat less extent by investigation in the secondary field. The material available for instruction in college education is small, partial in character, and relatively unorganized. To assume otherwise is presumption and insincerity. Because of this fact, the educationist is on insecure ground in essaying that his knowledge of college matters exceeds to any great extent that of good academic teachers who have garnered from rich experience a fund of principles and useful traditions. Until college teachers of education learn to improve their own classroom performances, they may well sit in humility at the feet of master teachers in academic fields, one or more of whom almost every college numbers among its present staff. The immediate import of educational inadequacy is that teachers of education should go slowly in offering courses in

college education. It is a doubtful measure of progress that more than twenty-five college departments are now attempting to do just this thing, whereas but a few have a staff trained and equipped for this purpose. Let us have intelligent investigation, as extensive and thoroughgoing as possible, but let us maintain a scholarly conscience in the realm of didactics.

One resource available in the larger institutions is the presence of graduate students—some in education, others in subject-matter fields. Increasing social pressure is certain to impinge upon our graduate schools to recognize the need of professional equipment on the part of college teachers, and the right of graduate students to professional training during the graduate years. One need only cite the recent action of the Association of American Colleges in requesting graduate schools to recognize a situation that is hastening upon them, and the tendency of state authorities to make professional training a requirement for teaching in public junior colleges. The graduate schools in whose faculties the teachers of education have their place must be prepared to guide graduate students both into the available knowledge and, even more important, into the attitude and technical competency to study their teaching and related problems. It is ancillary to this fact that some graduate students may become the most effective agents of a research program.

Quite as important as any technical equipment on the part of individuals is the matter of morale in the college situation. The improvement of college education is based upon the presence of a spirit of good-will among those responsible for such improvement. This means that the academic staff and the teachers of education must enter into a relation of genuine cooperation in the study of college problems. The disgraceful hostility of these two groups in American colleges must be overcome in behalf of the overwhelming problems which they face in common. It is the part of educationists to meet the present unhappy situation with an honest recognition of their own limitations, a genuinely scientific conscience, a

desire to be of service and an epidermis impervious to the cynical jibes and ignorances of some of their academic colleagues.

M. E. HAGGERTY,
University of Minnesota.

Personal Service and Freshman Scholarship

DURING the years 1924–28, the writer developed a student personnel service bureau in a small college in Iowa, the culminating results of which for the year 1927–28 were reported briefly in School and Society and have since been published in greater detail as one of the Iowa studies in education, Vol. V, No. 1. Both methods and the results appeared to be a marked improvement over older methods. However, this service was applied to the entire student body, so no exact comparisons could be made between the academic results achieved by students receiving this service and that achieved by students without it.

In May, 1929, the writer proposed a project in educational guidance of freshmen at the state University of Iowa for the year 1929–30, to be conducted on an experimental basis the result of which could be compared with results attained by the method already functioning through the established services on the campus. As a member of the faculty and as Assistant Dean of Men, it was possible to set up such a project so that it was entirely genuine and lacking in the usual earmarks of an experimental situation. The plan had the approval of the Administration and was supported at every point by faculty and administrative cooperation. The following paper is a brief report of the project:

The experimental group consisted of a group of freshmen men selected at random by the following method: About August 15, after a large percentage of the applicants for admission had sent in their transcripts of high school credits (Part I of Application for Admission), Part II of the Application for Admission, which is a personal information blank, was mailed to each student. The first 125 to return these blanks were taken as the experimental group. During registration all freshmen information blanks, including those of the experimental group, were distributed to registration advisers. Some of the advisers did not return their blanks for

six or eight weeks. Among those not returned were 13 of the experimental group's blanks. Hence only 112 students were actually included in the experimental group. Seven of these left the University of their own volition before the end of the first semester, so only 105 completed credit for the first semester. Four of these did not re-register of their own volition, and one was dropped for poor scholarship. Hence only 100 continued with the work of the second semester. Of these 97 completed second semester credit.

The control group was selected in October after the results of the qualifying examinations were available. These men were selected to pair with the 112 men in the experimental group. The following items were matched man for man in the two groups: (1) percentile rank on the qualifying examination; (2) chronological age; (3) course registered for—an engineer was matched with an engineer, a pre-medic with a pre-medic, liberal arts with liberal arts, etc.; (4) nationality, Jewish with Jewish, etc.

Of the Control Group, 107 completed credit for the first semester; 6 did not re-register of their own volition; 3 were dropped because of poor scholarship, leaving 98 to continue for the second semester. Of these 95 completed credit for that semester.

The number of students in each decile for both groups is shown in each of the tables of results, and the equality of the matching in the qualifying examinations is shown in column 3 of Table IV.

The students in both groups received the usual services of all departments on the campus—registration advice, health service, housing and employment service, and the usual services of the Dean of Men's Office, such as the delinquency reports and consequent advisement, absence records, form letters to parents, etc. The point of difference lay in *the constructive individual guidance given each man in the experimental group without waiting for difficulties to arise to initiate such assistance*. These services are briefly outlined as follows:

1. On September 12, each student of the experimental

group was mailed a copy of the writer's "An Open Letter to High School Seniors," with the accompanying letter:

September 12, 1929.

In large measure your freshman year will be the most important year of your university career. During that year most young men determine their future as students. You will face a multitude of adjustments upon which you will need guidance and assistance.

The Dean of Men's Office is the official adviser of freshman and sophomore men. While of necessity we must give special attention to all emergency cases, we are equally interested in giving our best assistance to all students.

In addition to my regular duties as Assistant Dean of Men, I am going to have time this year to give more complete personal service to about 125 freshman men. These services will include conferences, correspondence, scheduling of time, and coaching in study methods, as well as integrating the many services on the campus about your particular needs.

You have already filled out both sections of your application for admission, which is the first step in getting started right. As a second step I want you to read "An Open Letter to High School Seniors" which I am mailing under separate cover. While this letter was originally designed for students who had not yet chosen to go to college, the six questions discussed should be helpful to you.

If it is at all possible for you to get the ratings by your teacher and superintendent, please do so, and bring the complete letter and rating charts with you when you come in for your first conference with me. Please see me as soon after September 23 as you can. I will be in my office in room 12 basement Old Capitol, every afternoon, after September 23.

Sincerely yours,

LONZO JONES,
Assistant Dean of Men.

Each one's personal information blank had already been received and read, which introduced him to the writer. The letter quoted above was on the nature of a friendly response intended to create an atmosphere of mutual cooperation.

2. The students came to the campus, and participated with the entering freshman class in all events of freshman week.

3. Personal interviews:

(*a*) Between registration and November 1, each student was interviewed by the writer. The objects of this interview were to get acquainted with the student, to discover how he was getting adjusted to his college life, to impart to him something of the personal interest which the Dean of Men's Office had in him, and to offer constructive guidance where needed. A statement which briefly summarized the nature, the purpose and the results of this interview was incorporated in a personal letter to the parents which was written immediately following the interview. Rather than waiting until the student was in scholastic difficulties to get acquainted with him, it was hoped that, by this early contact, difficulties could be obviated or prevented from occurring.

(*b*) Later interviews were had at the students' initiative or at the writer's request and considered any of the many interests or problems of an active freshman.

(*c*) Each student was seen between November 26 and December 16 to report to him, and comment upon his grades for the first nine weeks. A letter was sent to his parents following this interview, commenting upon the student's progress and enclosing his grades.

(*d*) Again, between February 15 and March 1, each student was seen about his grades for the first semester.

(*e*) Those students whose work was low at the end of the first nine weeks or at the end of the semester were seen frequently. Time charts and study suggestions constituted the chief remedial methods proposed in these interviews.

(*f*) Between April 12 and 25, each student was seen again about his continued progress, or lack of it, as indicated on the delinquency reports. Again a letter was sent to the parents at this time indicating the results of this interview.

4. Letters to parents:

The letters to parents at regular intervals following each of the interviews were written with three main purposes in view: (1) to inform the parents of their son's status; (2) to indirectly influence the student through the parents, who would write to him, quoting from the letter; (3) and to establish an atmosphere of cordial cooperation between the

University, the parents and the student. The response of parents to these letters expressing their interest and cooperation reveals an appreciation which in itself is a worth-while result.

5. The time charts, used to reveal to the student and to the writer the amount of time actually given to studying, enabled the writer to advise discriminatingly and the student to schedule adequately the amount of time needed for his studies in order to improve his record. Of the four variables —native ability, time, study methods, and grades achieved— in a student's career he can exercise more control over the use of his time than over any other one. The amount of time recommended was governed by the student's percentile rank, and his scholastic or delinquency record up to the date of the interview.

6. Methods of study were suggested as a remedial measure for those students who were spending adequate time but yet failing to maintain achievement at their level of ability. This variable is also subject to modification and control by the student, but is one in which most students need constructive coaching.

7. Constant comparisons of the student's achievement with his ability, as measured by his percentile rank on the freshman qualifying examinations, were made by the writer to govern interviews and advice given.

8. Cooperation of other student services on the campus, such as housing, health, etc., was had when the student's situation required those services.

Results: The results of the project and the comparisons of the two groups on five significant criteria used are: (1) grade averages; (2) semester hours of A and B grades; (3) semester hours of nonpassing grades; (4) achievement in relation to ability; (5) number of students who completed the year's work in good standing.

1. Grade point average.

When the grades of each student were evaluated in terms of grade points (each hour of "A" equals four grade points; "B" equals three; "C" equals two; "D" equals one; "F"

equals none), the experimental group exceeded the control group at every decile for the first semester, and at every decile except the lowest for the second semester. The entire group made a grade point average for the first semester 22 per cent higher than the grade point average of the control group; and for the second semester 23 per cent higher. Table I shows the grade point averages for both the experimental and the control group (in this and in all the tables which follow, column X will represent the experimental group and column Y the control group), the difference between the two, X — Y, and the percentages of advantage at each decile level. Section A is for the first semester 1929–30, Section B for the second.

The smallest percentages of advantage were made in the

TABLE I

Decile	Number		Grade pt. Average		Difference	% of advantage
	X	Y	X	Y	X–Y	
Section A						
10th	17	17	2.83	2.45	.38	15
9th	12	12	2.76	2.12	.64	30
8th	16	16	2.13	1.87	.26	14
7th	8	8	2.26	1.96	.30	15
6th	11	11	2.09	1.53	.56	33
5th	0	8	2.01	1.61	.40	25
4th	6	6	1.82	1.31	.51	39
3rd	8	9	1.47	1.29	.18	14
2nd	10	11	1.47	1.28	.19	15
1st	8	9	1.46	1.18	.28	24
8–10	45	45	2.56	2.15	.41	19
4–7	34	33	2.04	1.61	.43	27
1–3	26	29	1.46	1.26	.20	16
Totals and averages	105	107	2.12	1.74	.38	22
Section B						
10th	16	16	2.77	2.45	.32	13
9th	12	12	2.77	2.11	.66	31
8th	15	15	2.15	1.63	.52	32
7th	7	8	2.38	1.75	.63	36
6th	11	10	1.98	1.56	.42	27
5th	8	7	2.09	1.74	.35	20
4th	6	6	1.86	1.20	.66	55
3rd	6	7	1.68	1.43	.25	17
2nd	9	8	1.58	1.25	.33	26
1st	8	6	1.30	1.50	−.20	−13
8–10	43	43	2.56	2.07	.49	24
4–7	32	31	2.07	1.58	.49	31
1–3	22	21	1.51	1.38	.13	9
Total and averages	97	95	2.16	1.76	.40	23

TABLE II

Deciles	Number		Total hours of A and B grade		Average Hours of A and B grade		Difference	% of gain
	X	Y	X	Y	X	Y	X–Y	
Section A								
10th	17	17	172	113	10.1	6.6	3.5	53
9th	12	12	112	47	9.5	3.9	5.6	143
8th	16	16	63	49	3.9	3.1	.8	26
7th	8	8	48	28	6.0	3.5	2.5	71
6th	11	11	37	7	3.4	.6	2.8	466
5th	9	8	28	11	3.1	1.4	1.7	121
4th	6	6	16	6	2.7	1.0	1.7	170
3rd	8	9	11	4	1.4	.4	1.0	250
2nd	10	11	17	10	1.7	.9	.8	90
1st	8	9	11	4	1 4	.4	1.0	250
8–10	45	45	347	209	7.7	4.7	3.0	64
4–7	34	33	129	52	3.8	1.6	2.2	137
1–3	26	20	39	18	1.5	.6	.9	150
Averages and Totals.	105	107	515	279	4.9	2.6	2.3	89
Section B								
10th	16	16	163	109	10.2	6.8	3.4	50
9th	12	12	119	58	9.9	4.8	5.1	106
8th	15	15	86	38	5.7	2.5	3.2	128
7th	7	8	48	16	6.9	2.0	4.9	245
6th	11	10	49	10	4.5	1.0	3.5	350
5th	8	7	40	8	5.0	1.1	3.9	350
4th	6	6	18	3	3.0	.5	2.5	500
3rd	6	7	15	5	2.5	.7	1.8	257
2nd	8	8	14	9	1.8	1.1	.7	64
1st	8	6	14	2	1.8	.3	1.5	500
8–10	43	43	368	205	8.5	4.8	3.7	77
4–7	32	31	155	37	4.9	1.2	3.7	308
1–3	22	21	43	16	2.0	.8	1.2	150
Averages and totals.	97	95	566	258	5.8	2.8	3.0	107

lower deciles, the levels at which under the present administrative methods in the Dean of Men's Office the most attention is given to the student and where in terms of potentiality the least fruitage in scholarship and its products can be expected. Some comparisons should be noted between various decile levels of the two groups. The experimental group had six deciles with grade averages above "C" for the first semester and five for the second, while the control group had only two for each semester. The fourth decile of the experimental group averaged as high as the eighth decile of the control group. It will be of interest to make other similar comparisons from Table I.

2. Semester hours of "A" and "B" grades:

The total and the average number of hours of "A" and "B" grade were computed for both groups by deciles. Again it was found that the experimental group exceeded the control group at every decile. For the first semester the experimental group averaged 89 per cent more semester hours of "A" and "B" grades than did the control group, and for the second semester 107 per cent more hours of "A" and "B" grade. Table II, A and B, summarizes these data.

Again some interesting comparisons can be made from decile to decile. For instance, in Section B it may be noted that students in the 3rd decile of the experimental group earned, on an average, as many hours of "A" and "B" grades as did the 8th decile of the control group. It should be noted, too, that the methods used in this project raised

TABLE III

Decile	Number		Total hours non-passing		Average hours non-passing		Difference	%
	X	Y	X	Y	X	Y	Y–X	
Section A								
10th	17	17	0	10	0	.6	.6	
9th	12	12	0	10	0	.6	.6	
8th	16	16	6	20	.4	1.3	.9	
7th	8	8	6	7	.7	.9	.2	
6th	11	11	6	26	.5	2.4	1.9	
5th	9	8	9	11	1.0	1.4	.4	
4th	6	6	11	22	1.8	3.7	1.9	
3rd	8	9	9	16	1.1	1.8	.7	
2nd	10	11	28	38	2.8	3.4	.6	
1st	8	9	9	30	1.0	3.3	2.3	
8–10	45	45	6	40	.1	.9	.8	800
4–7	34	33	32	66	.9	2.0	1.1	122
1–3	26	29	45	84	1.7	2.9	1.2	70
Total and averages	105	107	83	190	.8	1.8	1.0	125
Section B								
10th	16	16	4	8	.25	.50	.25	
9th	12	12	2	7	.16	.58	.42	
8th	15	15	4	34	.27	2.27	2.00	
7th	7	8	5	6	.71	.75	.04	
6th	11	10	8	16	.73	1.60	.87	
5th	8	7	3	0	.38	.0	−.38	
4th	6	6	7	10	1.17	1.67	.50	
3rd	6	7	3	11	.50	1.57	1.07	
2nd	8	8	20	27	2.50	3.38	.88	
1st	8	6	28	6	3.50	1.00	−2.50	
8–10	43	43	10	49	.23	1.14	.01	306
4–7	32	31	23	32	.72	1.03	.31	43
1–3	22	21	51	44	2.32	2.00	.32	−14
Totals and averages	97	95	84	125	.87	1.32	.45	52

the level of first rate achievement—"A" and "B" achievement—at every decile. They did not specialize on any one level of ability and neglect the others. They were adapted to each level of ability in an attempt to encourage each student's achievement at the level of his ability.

3. Semester hours of *non-passing* grades:

Table III, Sections A and B, shows the total and average number of hours of non passing marks by deciles.

Again at every decile level during the first semester and at 8 of the 10 deciles of the second semester the experimental group shows its superiority in having failed fewer hours of work. For the first semester the control group averaged 125 per cent more hours of non-passing work than did the experimental group, and 52 per cent more for the second semester.

4. Percentile rank:

Another criterion of a student's success is the degree to which his achievement conforms to his ability. The decile classification in Tables I to III are based upon the percentile rank of the students in the qualifying examinations given to all freshmen upon admission to the University. This rank is an index of the student's capacity to do college work, and may be termed his expectancy level. The average percentile rank of the students in each decile for both the experimental and the control group is shown in the third column of Table IV. Since each group was paired man for man as closely as possible one would expect the averages to be practically the same, as indeed they are.

The student's achievement as represented in semester grades was also converted into a percentile rank to facilitate comparisons with ability. The average achievement for each decile is shown for the experimental and the control groups under X and Y respectively of column four, of Table IV. These averages were then compared with those of column three and the deviations shown in the fifth column. The last column shows the advantage of the experimental over the control group in centiles. At every decile except the lowest the achievement of the experimental group shows a more favorable conformity to expectancy. Only deciles eight and

ten, of the experimental group, show serious negative deviation.

TABLE IV

Decile	Number		Average expectancy		Average achievement		Average deviation		Difference deviation
	X	Y	X	Y	X	Y	X	Y	Y − X
Section A									
10th	17	17	95.4	95.5	82.3	69.1	−13.1	−26.4	13.3
9th	12	12	85.0	84.4	80.8	58.4	− 4.2	−26.0	21.8
8th	16	16	74.1	74.0	59.1	46.5	−15.0	−27.5	12.5
7th	8	8	64.3	64.3	69.5	50.6	− .8	−13.7	12.9
6th	11	11	55.6	56.1	54.6	32.4	− 1.0	−23.7	22.7
5th	9	8	45.0	44.5	52.2	38.5	7.2	− 6.0	13.2
4th	6	6	32.0	31.8	46.5	24.2	14.5	− 7.5	22.0
3rd	8	9	24.4	24.3	28.8	22.7	4.4	− 1.6	6.0
2nd	10	11	14.3	14.0	31.6	27.5	17.3	13.5	3.8
1st	8	0	5.6	5.8	20.8	20.0	24.2	14.2	10.0
8–10	45	45	85.0	84.9	73.7	58.2	−11.3	−26.7	15.4
4–7	34	33	50.7	50.6	54.6	36.8	3.9	−13.8	17.7
1–3	26	28	14.7	14.7	30.2	23.7	15.5	8.0	7.5
Total and averages	105	107	50.5	55.3	56.7	42.3	.2	−13.0	13.2
Section B									
10th	16	16	95.5	95.7	79.2	66.0	−16.3	−29.7	13.4
9th	12	12	85.0	84.4	77.8	57.1	− 7.2	−27.3	20.1
8th	15	15	73.3	74.0	60.5	37.5	−13.3	−36.5	23.3
7th	7	8	64.3	64.3	65.1	39.2	.8	−25.1	25.0
6th	11	10	55.0	56.1	49.1	32.4	− 6.5	−23.7	17.2
5th	8	7	44.9	44.1	54.4	39.0	9.5	− 5.1	14.6
4th	6	6	32.0	31.8	44.5	17.2	12.5	−14.6	27.1
3rd	6	7	24.5	24.1	35.3	26.3	10.8	2.2	8.6
2nd	8	8	14.3	13.8	34.9	22.9	20.6	9.1	11.5
1st	8	6	5.6	6.0	23.2	27.7	17.6	21.7	− 4.1
8–10	43	43	84.1	84.8	80.7	53.0	−14.4	−31.2	16.8
4–7	32	31	50.4	50.8	53.1	32.7	2.7	−18.1	2 .8
1–3	22	21	13.0	15.0	26.0	18.4	21.1	3.4	8.7
Total and averages	97	95	57.1	58.3	55.4	40.5	− 1.7	−17.8	16.1

For purposes of advising students, achievement within plus or minus 20 centiles of their level of ability was considered satisfactory or within a reasonable degree of expectancy. Negative deviations of 20 or more centiles were considered as representing work inferior to the student's ability and a positive deviation of more than 20 centiles represented unusual success. Table V shows the number of students whose achievement was above, within or below this reasonable level of expectancy. Note particularly the percentages of unsuccessful students at each decile level and the very marked advantage which the experimental group holds over the control group.

TABLE V

		Total No.	10th	9th	8th	7th	6th	5th	4th	3rd	2nd	1st
Unusually successful	X	20	0	0	0	3	3	3	3	1	5	2
	Y	9	0	0	0	0	1	1	1	0	4	2
	X−Y	11	0	0	0	3	2	2	2	1	1	0
Satisfactory	X	65	13	10	10	4	4	4	2	7	5	0
	Y	58	8	6	6	4	3	5	3	9	7	7
	X−Y	7	5	4	4	0	1	−1	−1	−2	−2	−1
Unsuccessful	X	20	4	2	5	1	4	2	1	0	0	0
	Y	40	9	6	10	4	7	2	2	0	0	0
	X−Y	−20	−5	−4	−4	−3	−3	0	−1	0	0	0
Total	X	105	17	12	15	8	11	9	6	8	10	8
	Y	107	17	12	16	8	11	8	6	0	11	9
Percentage	X	19%	24%	17%	37%	12%	36%	22%	17%	0%	0%	0%
				27%			23%				0%	
Unsatisfactory	Y	37%	53%	50%	62%	50%	63%	25%	33%	0%	0%	0%
				56%			45%				0%	

		Total No.	10th	9th	8th	7th	6th	5th	4th	3rd	2nd	1st
Unusually successful	X	21	0	0	0	3	3	3	3	2	5	2
	Y	7	0	0	0	0	0	1	0	1	2	3
	X−Y	14	0	0	0	3	3	2	3	1	3	−1
Satisfactory	X	57	12	10	10	3	3	3	3	4	3	6
	Y	50	8	7	4	3	5	5	3	6	6	3
	X−Y	7	4	3	6	0	−2	−2	0	−2	−3	3
Unsuccessfu	X	19	4	2	5	1	5	2	0	0	0	0
	Y	33	8	5	11	5	5	1	3	0	0	0
	X−Y	−10	−4	−3	−6	−4	0	1	−3	0	0	0
Total	X	97	16	12	15	7	11	8	6	6	8	8
	Y	95	16	12	15	8	10	7	6	7	8	6
Percentage	X	10.6%	25%	17%	33%	14%	45%	25%	0%	0%	0%	0%
				26%			25%				0%	
Unsatisfactory	Y	40%	50%	42%	73%	62%	50%	14%	50%	0%	0%	0%
				56%			45%				0%	

It is apparent from both these groups that the lowest decile students are producing more efficient scholastic results *in terms of ability* than any other decile. The experimental group, however, shows a much smaller percentage of the high decile students doing inferior work than is shown by the

control group, when expectancy level is taken as the criterion by which to measure a student's success.

Fifty-six per cent of the students in the three upper deciles of the control group were unsuccessful for both semesters as contrasted with 27 per cent and 26 per cent of the experimental group. Forty-five per cent of the students in the four middle deciles of the control group were unsuccessful for both semesters as contrasted with twenty-three per cent and twenty-five per cent for the experimental group.

5. Number completing the year in good standing.

The number of students in each group who completed the year's work in good standing was used as a fifth basis of comparison. These data are shown in Table VI. The columns are self-explanatory. Of the three upper deciles the experimental group has 42 or 93 per cent of the original number completing the year in good standing; the control group has 38 or 84.5 per cent. Of the four middle deciles the experimental group has 26 or 74 per cent of the original group completing the year in good standing; the control group 20 or 57 per cent. Of the lowest three deciles both groups have 8 or 25 per cent completing the year in good standing. While it was the purpose of this project to aid students at all levels of ability, it is obvious that in terms of this criterion the

TABLE VI

Decile	Original number		Quit of own accord		Dropped for pr. grades		Prob. for low grades		Good standing		% in good standing	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10th.....	17	17	1	1	0	0	0	0	16	16	94	94
9th.....	12	12	0	0	0	0	0	1	12	11	100	92
8th.....	16	16	1	1	0	2	1	2	14	11	88	69
7th.....	8	8	1	0	0	0	0	1	7	7	88	88
6th.....	11	11	0	1	0	1	3	3	8	6	73	55
5th.....	0	0	1	1	0	1	2	2	6	5	67	56
4th.....	7	7	1	1	0	0	1	4	5	2	71	29
3rd.....	0	0	3	2	0	0	4	4	2	3	22	33
2nd.....	13	13	4	4	1	3	4	3	4	3	31	23
1st.....	10	10	2	3	1	1	5	4	2	2	20	20
8–10...	45	45	2	2	0	2	1	3	43	38	93	85
4–7....	36	35	3	3	0	2	6	10	26	20	74	57
1–3....	32	32	9	9	2	4	13	11	8	8	25	25
Total....	112	112	14	14	2	8	20	24	76	66	68	59

least achievement was secured in the lower deciles. The writer wishes to call attention to the descending order of percentages of students successfully completing the year as one goes down the scale from the highest to the lowest third.

Experimental group....	93%	74%	25%
Control group.....	84.5%	57%	25%

SUMMARY AND CONCLUSIONS

By the use of constructive personnel services an attempt was made to improve the quality of scholarship in a group of unselected freshmen men at the State University of Iowa. Pre-registration correspondence; four personal interviews or more with each student; personal letters to parents; comparison of achievement with ability as a basis for judging success or failure; careful diagnosis of conditions contributing to successful or unsuccessful achievement; and discriminating and specific remedial suggestions as to the use of time, study methods, health, rooming quarters, outside employment, constituted the services used. In comparison with the control group, the results show that the experimental group had a grade point average for the year 23 per cent higher; had nearly twice as many semester hours of A and B grades; had only half as many hours of non-passing grades; achieved 13 centiles nearer the level of their ability as measured by the freshman qualifying examination; had 76 who finished the year above probation level as compared with 66 in the control group; and finally had 85 return for the sophomore year as compared with 66.

LONZO JONES,
University of Iowa.

Copyright and the Prohibition of Importation of Books*

ALL modern copyright legislation of all countries prohibits the importation of unauthorized, *piratical* copies. When opposition is urged to the proposals for the prohibition of importation of foreign books which are contained in the copyright bill now before Congress, it is not opposition to the legal exclusion of *piratical copies*. What is proposed and what is opposed are the provisions in that bill to prevent the American book lover from securing for his individual use a copy of an English author's book in the form in which that author has seen fit to have it printed and bound in his own country. Such importation is prohibited because it is contended by the publishers that when made it impinges upon their rights in all cases where they have secured the privilege to reprint an English author's book and to publish it in the United States.

It is, of course, very obvious that when an American publisher has obtained from a British author an assignment of the copyright in his book for the United States and has proceeded to print it from type set in the United States and has bound copies of the work here and placed them on sale, that it is greatly to his interest that such sale should not be exposed to the competition which might ensue if copies of the author's English edition could also be purchased. It is not only that there might be something about the English edition which would appeal to an American purchaser of the book and lead to a choice of the English copy, but it might further be discovered that the English copy was cheaper and that it would cost less than the American copy even when postage and duty paid were added to the English price. It would not be difficult to instance cases where the original English edition was very much cheaper.

The copyright law of the United States grants to the

*Read at the conference of the American Library Institute, Chicago, December, 1930.

American holder of a copyright in a book, even an English book, not only the exclusive right "to print, reprint, publish and copy" such book, but also the exclusive right "to vend the copyrighted work." The publishers, therefore, simply contend that this exclusive right to vend the book within the United States which they have obtained by the English author's assignment to them of the copyright of the book for the United States should—in order to give them what is their just due—permit them to obtain legislation to automatically prevent the importation of such competing copies. This contention started in 1891 and has continued up to the present time, with only some minor modifications in its form of presentation.

The most serious competition sustained by the publishers of an American reprint of an English book has been due to the purchase by American libraries of the English copies of the author's edition, rather than copies of the American reprint. The copyright bill, which was introduced on December 9, 1929, the bill H. R. 6990, sets out in its section 30, the final text of the prohibition of importation clauses which the publishers desired should be enacted. They fill 65 lines of the bill. It is provided that during the existence of the copyright in any work—namely for the life of the author and for fifty years after his death—in all cases where the copyright in such work by a foreign author has been assigned to an American publisher and the work has been manufactured in the United States, then the importation of any copies so manufactured (although authorized by the author or proprietor) is prohibited "*during the period in which any edition of American manufacture is published and copies of such American edition sufficient to supply customers are in the possession of the publisher.*"

Then follows, in a series of subsections, the exceptions to this general prohibition including substantially such as are in our present law with the rather comical interpolation of "motion pictures and motion-picture photoplays," and then in subsection (a) permission to import by individuals, libraries and institutions, as in our present law, of "one copy at a time

for use and not for sale or hire for profit,"—provided the American publisher does not within ten days after written demand agree to supply the desired book.

These were the provisions in the bill at the public hearings before the House Committee on Patents in April, 1930. They are contained in section 30 and received but little attention, only Mr. Cannon, representing the American Library Association, commenting upon them. But the Department of State submitted at that hearing a long, carefully written and very important statement, printed in full in the Report of the hearings, analyzing the provisions of that section. In that document it is recommended that the entire section 30 be stricken from the bill for the reason, among others, that these proposals for the prohibition of importation of authorized copies of foreign books "are designed for the protection of American manufacturing industry, are consequently purely economic provisions, and are without necessary connection with copyright or with a statute governing copyright." It is pointed out that such proposed exclusion of authorized copies of the foreign book must be based upon provisions in the contract for the republication of the book and that "if the American publisher does not obtain an exclusive agency by virtue of his contract there is surely no reason why the Government should try to make one for him." The chief purpose of section 30 is declared to be the protection of "American producers and distributors of books by authors who are nationals of other countries from competition by importations of the same books printed and manufactured in foreign countries." The bill was thereupon amended in the Committee, before being reported, in accordance with the suggestion of the Department of State, and subsection (a) of section 30 was altered to permit the importation without conditions, substantially as now permitted under the law in force, of

"not more than one copy of any such work on any one invoice, for use and not for sale or hire, by and for any free public library or branch thereof, any privately owned or endowed library open to free use by the public or by scholars, or any school, college, society, or institution or-

ganized and conducted in good faith for educational, literary, philosophical, scientific, or religious purposes, or for the encouragement of the fine arts, and not for profit."

Under this provision American librarians would be entitled to continue the importation for their libraries of copies of the authorized edition of works by English authors as they do now. In other words, the librarians have won out in their long struggle against the persistent efforts of the publishers to secure legislation which should automatically cut them off from this reasonable privilege.

But while the alterations made in the text of section 30 in the amended bill reported to the House of Representatives—H. R. 12549—will permit as heretofore importation by libraries, the case of the individual book buyer has been rendered distressingly worse. The sound principles declared by the Department of State have been ignored in his case although it is perfectly obvious they apply with equal force to all individual buyers for use and not for sale—whether librarians or merely booklovers.

The student, the teacher, the university professor, while still ostensibly permitted to import as they may now under the law in force "not more than one copy of any such work on any one invoice, for individual use and not for sale or hire," can only do so subject to the following restrictions, *quoted verbatim* from section 30 (b) of the bill H. R. 12549.

"provided that within ten days prior to the date of the ordering of such copy for importation, the proprietor of the United States copyright or rights to such work, within ten days after written demand for a copy of such work specifying that such copy is desired for use and not for sale or hire, shall have declined or neglected to agree to supply the copy demanded at a price equivalent to the foreign price thereof and transportation charges, plus customs duties when subject thereto; or provided that at the date of the order of such copy for importation no such registration and deposit of such copies of the American edition shall have been made as aforesaid."

This is confused language but it indicates clearly enough that the American student or professor, who sees the announcement of an English book which he desires to buy, cannot at once order it directly from London. He must first

try to ascertain whether the book has been reprinted in the United States and whether it has been duly deposited and registered for copyright and by whom. He can only obtain this information authoritatively upon inquiry in the Copyright Office. But such deposit and registration are often delayed for weeks and months. If, however, the would-be purchaser has ascertained the fact, he may then send his order for the book to the American publisher of it; but he must then wait ten days to further ascertain whether the latter will decline to supply the book or simple neglect his order. In either case—whether his order is refused or merely ignored, he may then order the copy of the book from abroad. But American publishers are permitted, and it is their practice when proposing to publish an American edition of an English author's book, to send notice to the customs authorities of that fact and to request the prohibition of importation of any copies of the original edition. There seems no reasonable likelihood that the postmaster or custom house inspector would know or could ascertain that the particular book in such case was an exception and should be permitted importation. What is here proposed is neither equitable nor practicable. There are no prohibitive provisions which parallel these now proposed in the copyright legislation of any country, and, as the Department of State has declared, they are "altogether inappropriate in legislation relating to copyright." When proposed years ago the head of one old and important publishing house pointed out that the laws of the United States theretofore prohibited the importation of but three things: Chinese, counterfeit money and lottery tickets, and that the proposal to add, as a fourth article forbidden, a *good book* was sure to arouse criticism. When this was first proposed in 1891, Senator John Sherman made a strong speech against it. He said:

"I put it upon broader grounds. . . . In no case would I levy such a prohibition upon such an article of necessity as a book. Books are just as much articles of necessity to an intelligent man as the food he eats and the coffee he drinks; he must have them. Most of us, when we want a book, send and get it. If we can get it in our own country we may be easily satisfied; but suppose the American publisher who has

this monopoly should refuse to issue a book of sufficient taste and of a character that suits our taste? Ought not taste to be indulged in—ought not fancy to be indulged in? Are we mere plodding clodhoppers, satisfied with what only American publishers will publish, without any respect to our taste as to the character of type and the illustrations and all that?"

The publishers' proposals were defeated then, and these provisions for the prohibition of importation of authorized copies have been refused by Congress ever since. They should not be proposed or urged now, and they should not be enacted into law.

The individual book buyer was not represented either at the conferences on the copyright bill, or at the public hearings on that measure. His present privilege of importation is sufficiently restricted. He should, at least, be allowed to continue such limited privileges as he has had under law since 1891, and not be further restricted and hampered.

Under existing law a person or a family arriving in the United States from a foreign country is allowed to bring into our country such books as he or they may possess which form part of their personal baggage and are not intended for sale. To this provision of present law in section 31 (d) there has been added in the bill:

"*Provided, however*, That no one person shall so import more than *five* such works at one time."

No statement was made at the hearings in explanation of this extraordinary proposal. It certainly should be stricken from the bill before enactment.

It is sometimes contended that the provisions of the British copyright law correspond to the proposals contained in section 30 (b) of the copyright bill. But upon careful examination they will be found to be entirely different. Section 14 of the British Copyright Act in force provides that "copies made out of the United Kingdom of any work in which copyright subsists which if made in the United Kingdom would infringe copyright" are prohibited importation. But this refers to *piratical* copies. It is obviously absurd to suppose that copies of the author's own edition of his book could infringe his copyright in it.

The British Act also provides for the enforcement of a contract between author and publisher when it contains an agreement that the authorized reprint shall not be sold in competition with copies of the original edition, and when the copyright owner has given notice in writing to the proper customs official that he is desirous that copies of such reprint should not be imported. But the language is very guarded. It reads:

"Before detaining any such copies or taking any further proceedings with a view to the forfeiture thereof . . . the Commissioners of Customs and Excise may require the regulations under this section to be complied with, and may satisfy themselves in accordance with those regulations that the copies are such as are prohibited by this section to be imported."

There is here no brash proposal for the automatic prohibition of the purchase of a copy of the author's own edition of his book, such as is proposed in the copyright bill H. R. 12549.

The Tauchnitz series of reprints of the works of English authors is frequently cited as an example of what is now proposed; it being well known that copies of the Tauchnitz books may not be imported into England, nor even carried there by travellers. But to be a parallel case it would need to be shown that the English originals of the Tauchnitz reprints are excluded from Germany. That is, however, not the case, nor is there any proposal to that end. The Tauchnitz books are cheap and handy reprints made for the convenience of English reading travellers on the Continent, and their publication in no way interferes with obtaining from England at any time and without formalities of any kind copies of the original British edition for use or sale either in Germany or in any other Continental country.

THORVALD SOLBERG,
U. S. Register of Copyrights, 1879–1930.





The Educational Record

Published Quarterly by

The American Council on Education

Volume 12 July, 1931 No. 3

Editor:
C. R. MANN

CONTENTS

The Fourteenth Annual Meeting

Reports: The Executive Committee; The Treasurer; The Director; The Committee on Problems and Plans; The Committee on Personnel Methods; The Cooperative Test Service

Chairman's Address—Education and Politics
Charles H. Judd

Education Research Committee of Engineering Foundation
Harvey N. Davis

State University Finance
Shirley W. Smith

Sources of Financial Support for the Liberal Arts College
George L. Omwake

Costs of Adult Education in Urban Universities
Henry J. Doermann

Financing the Public School System
Henry C. Morrison

Gifts for Education
Marshall Olds

Tuition and the Student's Share of the Cost of Education
George A. Brakeley

The Contribution of Boards and Foundations
Anson Phelps Stokes

The Educational Finance Inquiry
William John Cooper

The Proposed 1932 College Testing Program of the Cooperative Test Service
J. B. Johnston

The National Committee on Education by Radio
Joy E. Morgan

The Chicago Plan
Beardsley Ruml

Constitution

Officers and Members 1931–32

Annual Subscription, $2.00

COPYRIGHT, 1931
AMERICAN COUNCIL ON EDUCATION

NATIONAL CAPITAL PRESS, INC., WASHINGTON, D. C.

The Fourteenth Annual Meeting

THE regular annual meeting of the American Council on Education was held in the building of the National Research Council, Washington, D. C., Friday and Saturday, May 8 and 9, 1931. The registration showed that there were in attendance delegates from twenty constituent members, thirty-nine institutional members, and four associate members.

The Council, which has operated as an unincorporated association since its inauguration in 1918, was incorporated during the session under the laws of the District of Columbia as a non-profit-making educational corporation, without change in its Constitution or by-laws.

The report of the Executive Committee showed that the membership of the Council is steadily increasing and consists at the present time of twenty-five national associations as constituent members, twenty-three associate members, and two hundred and fifty-six institutional members. Receipts of the Council from 1918 to 1931 have been $1,374,082.40; the expenditures $1,341,190.97. About 70 per cent of the total amount was received and expended as special grants for particular studies.

The Treasurer's report, given elsewhere in this RECORD, showed that the Council is in sound financial condition. The Director's budget, submitted by the Executive Committee and approved by the Council, calls for the expenditure of $54,400 for the year 1931-32, exclusive of the expenditures for special funds.

Growing interest in the work of the Council was shown in the request of the National Broadcasting Company for permission to broadcast the Director's annual address in full at their own expense. Letters received at the office of the Council showed that reception of the address was perfect in points as far distant as San Francisco, California. In the address the Director emphasized as the significant feature of the work of the past year the serious effort that is being made

by the Council's committees to isolate and define those problems in education that are worth solving.

Serious consideration of American education and American educational policy as a whole has been carried farther in the past year than ever before. The bringing together in the Council's committees of men of the widest knowledge and experience from different sections of the country, and the discussion by them of educational questions in committee for hours and days without interruption except for sleep and meals, is gradually producing a consensus of opinion as to where the real problems lie in American education, and what studies will contribute to the formulation of a far-reaching program for educational advance. At the same time, through the experiences of the committees, a technique of cooperative effort and pooling of intellectual resources is being devised. The time of the conferees being donated by their institutions or taken from their week-end holidays, the comparatively small sum at the command of the Council for committee expenses stretches far, although the great distances in America make the cost of bringing together a national group high for traveling expenses, as compared with other countries.

The National Advisory Committee on Education has held three meetings since its organization in 1929, nine meetings of its Conference Committee, and two meetings of its Editorial Committee.

The Committee on Problems and Plans in Education has held one preliminary meeting and two regular meetings, representing seven full days of conference.

The Central Committee on Personnel Methods held three meetings during the year and the Personnel Committee held a two-day session in Indianapolis with seventeen members in attendance. Ten sub-committees appointed at the Indianapolis conference have each held one session. The work of these various committees is described in detail in the reports printed in this number of the RECORD.

While the work of each committee is significant in itself, the significance is better understood if the work of the

committees is considered as a whole. The success attending the exploratory work done in various fields by these committees suggests at once that as funds become available the Council should proceed with the organization of similar committees in other important fields of education. One of these fields is the field of educational finance, into which the Council has not hitherto entered. Some of the problems in this field were discussed at the Friday afternoon session which was devoted to a conference on the general theme "Whose Money and How Much for American Education." The general subject was attacked from different angles by seven speakers, whose carefully prepared addresses are given in this number of the RECORD. In this group should be included also the address of the U. S. Commissioner of Education outlining the plans for the Educational Finance Inquiry, which was given Saturday morning as Dr. Cooper was unable to be in Washington on Friday afternoon to join the financial conference.

Dean Beardsley Ruml's address described the larger significance of the Chicago Plan, and Dr. Joy E. Morgan, Chairman of the National Committee on Education by Radio, and President Harvey N. Davis of Stevens Institute of Technology, Chairman of the Educational Research Committee of the Engineering Foundation, described the plans and purposes of their respective committees.

The report of the Problems and Plans Committee was presented by its chairman, Chancellor S. P. Capen, and the report of the work of the Personnel Committee was made by its Secretary, Dr. John H. MacCracken, in the absence of the Chairman of the Committee, Dean Herbert E. Hawkes.

The work of the Cooperative Test Service of the Council and the plans for the nation-wide testing program in 1932 were presented by Dr. Ben D. Wood, Director of the Service, and by Dean J. B. Johnston of the University of Minnesota, Chairman of the Advisory Committee of the Test Service.

The annual Chairman's address by Dr. Charles H. Judd, entitled "Education and Politics," showed that education is so inextricably interwoven with the larger purposes of state-

craft, and constitutes so important a part of government policy, having come to be the chief instrument of social control in the modern state, that the tasks and responsibilities of education and statesmanship tend to merge, and that education cannot free itself of its share of responsibility in determining the larger social purposes of the state and nation.

Special grants to the Council already announced during the year included the supplementary grant of $8,000 a year for two years from the Carnegie Foundation for following up the study of Modern Foreign Language Teaching, and the grant from the General Education Board of a sum, not to exceed $500,000, during a period of ten years, for the expenses of the Cooperative Test Service in the preparation of a new series of objective tests.

The Constitution was amended during the meeting to make the Associate Director *ex officio* a member of the Executive Committee.

Officers, as given on page 372 of this number of the RECORD, were nominated and unanimously elected for the coming year, the choice of officers, in accordance with the Constitution, being confined to the delegates elected by the constituent members, the principle of rotation in office for the various constituent members being observed as hitherto.

Report of the Executive Committee

FOUR regular meetings of the Executive Committee were held on October 25, 1930, January 10, 1931, March 21, 1931, and May 8, 1931. At least nine of the ten members were present in person or by proxy at each of the meetings.

Dean Dorothy Stimson of Goucher College resigned as a member of the committee because of absence abroad, and Professor Florence E. Bamberger of Johns Hopkins University, representing the National Education Association, was elected to fill the vacancy.

During the year the number of institutional members of the Council has increased from 238 to 256. Four members withdrew and twenty-two new members were added as follows:

Withdrew

Bates College, Maine
Judson College, Alabama
St. Stephens College, New York
St. Vincents College, Pennsylvania

New Members Added

Adelphi College, New York
Allegheny College, Pennsylvania
Bowdoin College, Maine
Bradford Academy Junior College, Massachusetts
Brown University, Rhode Island
College of St. Scholastica, Minnesota
Connecticut Agricultural College
Fisk University, Tennessee
Georgia School of Technology
Good Counsel College, New York
Immaculate Heart College, California
Junior College of Connecticut
LaSalle College, Pennsylvania
Mt. St. Joseph's College, Pennsylvania
Nazareth College, New York
Notre Dame College, Ohio
Rosemont College, Pennsylvania
Simmons College, Massachusetts
Tulane University, Louisiana
University of Nebraska
Western Maryland College
West Virginia State College

The number of Associate Members has increased from twenty-one to twenty-three by the addition of the American Association of Museums and of the Federated Council on Art Education. Of the Constituent Members, the American Management Association tendered its resignation for financial reasons but has been asked to hold its resignation in abeyance for the time being.

At the meeting of the Executive Committee held in January it was voted that it be the sense of the Executive Committee that the Council should be incorporated, and the Director and Associate Director were instructed to look into the matter and report recommendations to the Executive Committee. In accordance with this action the executive officers have recommended to the Executive Committee that since Congress is making every effort to relieve itself of the burden of special Acts of Incorporation, the Council follow the precedent of the U. S. Chamber of Commerce and seek incorporation under the laws of the District of Columbia. Authority for this purpose will be sought from the Council at the annual meeting.

The Assistant Director of the Council, Dr. David A. Robertson, tendered his resignation to take effect June 15, 1930, in order that he might accept appointment as President of Goucher College, Baltimore. The resignation of Dr. Robertson was accepted with regret by the Executive Committee and with hearty appreciation of his effective service to the Council extending over six years.

At the meeting of the Executive Committee held in October it was resolved to create the office of Associate Director and to appoint to the office Dr. John H. MacCracken, formerly President of Lafayette College. Dr. MacCracken accepted the appointment and entered on the duties of the office November first.

The proposal of the Committee on Personnel Methods that a Cooperative Test Service be organized under the direction of the American Council received favorable consideration by the General Education Board, and in a letter dated June 6, 1930, the Council was notified that the executive officers of the General Education Board had been

authorized in their discretion to commit the Board to annual grants to the American Council on Education for a period of not more than ten years, beginning July 1, 1930, or such date as may be mutually agreed upon, of sums not exceeding in the aggregate $500,000, for research in the field of objective testing, in general conformity with the plan outlined, the sum to be made available in any year to be determined by the executive officers in consultation with the authorities of the Council. At the meeting of the Executive Committee held October 25, 1930, formal action was taken accepting the grant of the General Education Board under the conditions specified in the letter of its secretary under date of June 6, 1930, and expressing to the General Education Board the hearty appreciation of the Council for its cooperation and for its support of this enterprise.

At the same meeting it was voted that there be organized the Cooperative Test Service of the American Council on Education, that a headquarters office be established in New York, and a budget of $50,000 be approved for the fiscal year 1930-31. As the Central Committee of the Committee on Personnel Methods to supervise the Cooperative Test Service the following were appointed: H. E. Hawkes, Chairman, L. B. Hopkins, H. W. Holmes, W. W. Charters, A. H. Ruggles, P. C. Packer, C. R. Mann, *ex-officio*, J. H. MacCracken, *ex-officio*.

The work of this committee and of the general Committee on Personnel Methods and of the Cooperative Test Service will be presented in the respective reports of these organizations.

In view of the desirability of following up the experimental work stimulated by the report of the Committee on Modern Foreign Language Study, the Director was authorized to make application to the Carnegie Foundation for the Advancement of Teaching for a further grant. The request was favorably considered by the Carnegie Foundation and a grant of $8,000 a year for two years to the American Council authorized for this purpose. The Executive Committee appointed as members of the Modern Foreign Language Study Committee for the current year the following: R. H.

Fife, Chairman; J. P. W. Crawford, Vice-Chairman; A. Coleman, Secretary; H. E. Ford, V. A. C. Henmon, E. B. de Sauze, R. K. Hicks.

The Executive Committee considered the matter of procedure in the securing of grants for investigations under the auspices of the Council, and on motion it was voted that all requests for financial aid for investigations under the auspices of the American Council shall be approved by the Executive Committee and transmitted through the office of the Council to the person or agency to whom the request is addressed.

Dean Herbert E. Hawkes, Chairman of the Committee on Personnel Methods, and John H. MacCracken, Associate Director, *ex-officio*, were added to the membership of the Committee on Problems and Plans in Education.

The Committee on Supplementary Materials of Instruction, Dr. Charles H. Judd, Chairman, has issued four mimeographed pamphlets giving data on arabic numerals, on strange methods of writing, on the origin of the alphabet, and on the making of the book. The material has been distributed to the ten public school systems that are trying it out and reconstructing it for the most effective use in regular class work. The Boston School System has withdrawn from the enterprise, and Providence, Rhode Island, has taken its place. Cooperation has been established with a similar sub-committee of the Commission on Social Studies of the American Historical Association.

The committee accepted an invitation to be represented on the Council of the National Parks Association, and designated the Director or the Associate Director as its representative.

The committee accepted an invitation of the Executive Committee of the Universities Bureau of the British Empire to be represented at the Quinquennial Congress of the Universities of the Empire to be held in Edinburgh in July, 1931, and appointed the Director or a delegate or delegates to be named by him to represent the Council.

The committee accepted the invitation of the U. S. Commissioner of Education to be represented on the Advisory Committee of the Survey of Teacher Training Institutions,

and appointed the Director of the Council as its representative.

On the invitation of the National Research Council, the Director was appointed the representative of the American Council on the Committee on Educational Relations of the Research Council.

The U. S. Commissioner of Education appointed the Associate Director of the Council a member of the National Committee on Education by Radio.

During the year 378 institutions have purchased 156,948 copies of the psychological examination for college freshmen. In view of the large quantities now in demand it was voted to reduce the price of the test to $7 per hundred, and the Director was authorized in his discretion to make further reduction to institutional members of the Council for use in the conduct of regional surveys.

The six thousand copies of the Handbook of American Universities and Colleges published by the American Council in 1928 under the editorship of Dr. Robertson have all been sold, and the book is now out of print. The question of a revised edition was considered by the committee, and it was the unanimous opinion of the committee that the usefulness of the book would justify a new edition, provided suitable financial arrangements could be made. Attempts to secure publication on a commercial basis having met with no success, the committee voted to make application to the General Education Board for a grant for a revised edition similar to the grant of the Laura Spelman Rockefeller Foundation, which made the first edition possible.

The Director of the Council has continued his service as Chairman of the National Advisory Committee on Education. The committee is not a Committee of the Council, but its work is so important and so closely related to the work of the Council that a high degree of cooperation on the part of individual members and officers of the Council has seemed desirable. A report on the progress made by the committee during the year will be made by the Director.

Four issues of THE EDUCATIONAL RECORD have been published during the year with an edition of 2,800 copies of

each issue and several hundred reprints of certain articles. Favorable comment on the quality of the material included in the RECORD has been received from many quarters.

An analysis of the receipts and expenditures of the Council made at the request of the U. S. Office of Education shows that from 1918 to 1930 the Council received in membership fees and other sources of general income a total of $379,188.61 and in grants from foundations a total of $885,408.22. We have expended in the same period $1,240,291.72.

The Council has during the experimental period of the last thirteen years been gradually formulating more definite policies and procedures, and the picture of the functions of the Council in our American scheme of education has from year to year been growing more definite in the minds of those interested in guiding the Council's development. It has become increasingly clear that the Council performs a definite service for American education for which no other agency exists; that the researches now being undertaken by the Office of Education, which are, we trust, but the beginning of a still wider governmental program of research, only emphasize the advantages of the presence in Washington of a voluntary organization of the institutions themselves for cooperation and counsel in such undertakings. With the U. S. Commissioner of Education *ex-officio* on the Council's Executive Committee and a member of its Committee on Problems and Plans, and with the Director of the Council Chairman of the National Advisory Committee on Education by official appointment of the Secretary of the Interior, the official office and the voluntary agency have worked in complete harmony and mutual helpfulness.

In the same way the relations of the Council to other voluntary organizations, particularly the National Research Council, the American Council of Learned Societies, the Social Science Research Council, and the Institute of International Education, have continued on a friendly and cordial basis, and a clearer understanding of the proper delimitation of the fields of each of these organizations to avoid unnecessary duplication and overlapping is being worked out. Evidence of the spirit of close cooperation is shown in the

appointment of joint committees, such as the joint committee on State School Administration of the American Council and the Social Science Research Council, and in the selection of the same personnel for membership on the committees of the different organizations dealing with related problems.

The Council has been careful to avoid, in defining its own function, any attempt to annex any unclaimed border territory. It has not, however, sought to avoid any task or responsibility within its own field, when it was clear it could be of service to American education. It hopes by diligence and impartiality in its undertakings to continue to command the confidence and support of all concerned in American education.

The financial affairs of the Council are presented in the Treasurer's report. The budget adopted at the meeting in May, 1930, estimated the available resources at $46,101.84 The actual resources have been $56,570.32. Expenditures were authorized amounting to $46,100. Actual expenditures have been $45,088.37. The year closes with a cash balance on hand as of April 30, 1931, of $16,685.94.

The Director's budget for the coming year is presented herewith. It is recommended that it be approved and the Director be authorized to make expenditures in accordance therewith.

Due notice has been given of a proposed amendment to the Constitution, designed to make the Associate Director *ex-officio* member of the Executive Committee. It is recommended that this amendment be approved and that the first sentence of Section 6 of the Constitution be amended to read:

6. EXECUTIVE COMMITTEE: There shall be an Executive Committee consisting of *eleven* members, eight selected from the representatives of the constituent organizations, and the Director, *Associate Director* and the United States Commissioner of Education *ex-officio*.

The Executive Committee is also presenting a Certificate of Incorporation of the American Council on Education and recommends that the following resolution be passed:

Resolved, that Henry Grattan Doyle, P. J. McCormick and Charles R. Mann are authorized to make, sign, and acknowledge before an officer authorized to take acknowledgment of deeds in the District of Columbia, and to file in the office of the Recorder of Deeds to be recorded, a Certificate of Incorporation of American Council on Education in the form presented.

Respectfully submitted,

HENRY GRATTAN DOYLE,
Secretary.

Certificate of Incorporation of American Council on Education

THIS IS TO CERTIFY that we whose names are hereunto subscribed, citizens of the United States, a majority of whom are citizens of the District of Columbia, have associated ourselves together pursuant to the provisions of Sub-Chapter 3 of Chapter 18 of the Code of Law for the District of Columbia, approved March 3, 1901, and Acts of Congress Amendatory thereto under the corporate name of

AMERICAN COUNCIL ON EDUCATION

The term for which the corporation is organized is perpetual.

The particular deeds and objects of the corporation are educational and are to advance education and educational methods, through comprehensive, voluntary, cooperative action on the part of American educational associations, organizations and institutions, and in fulfillment of this purpose to conduct, assist and encourage scholarly investigations in the field of education, devise techniques, collect and disseminate information and maintain a central office and permanent staff to serve education in such undertakings as may be required and approved from year to year and from

generation to generation for the common welfare; to succeed, and to carry on the affairs of the American Council on Education, an unincorporated association formed on March 26, 1918, in the City of Washington, District of Columbia, and since conducting its affairs with headquarters at the said City of Washington.

The number of managers of the corporation, who shall be called the Executive Committee shall, for the first year of its existence, be eleven.

The members of the corporation shall be of three classes, namely, constituent members, associate members, institutional members, together with such classes of members as may from time to time be created by action of the corporation, whose qualifications, terms of membership, rights and obligations, shall be as prescribed by the Constitution and by-laws of the corporation.

Witness our signatures and seals this 8th day of May, A.D. 1931.

_____(Seal)
of Washington, D. C.

Witness:

_____ _____(Seal)
of Chevy Chase, Md.

_____ _____(Seal)
of Washington, D. C.

Director's Budget, 1931-32

ESTIMATED RESOURCES

Membership dues, 1931–32, $38,470, of which $9,950 have been paid. Balance due	$28,520.00	
Balance on back dues	3,890.00	
Services for investigations	5,500.00	
Bank balance, April 30, 1931	16,685.94	
		$54,595.94

EXPENDITURES

	Fiscal year 1930–31 *Authorized*	*Actual Disbursements*	*Fiscal Year* 1931–32 *Proposed*
Rent	$ 4,500	$ 4,455.04	$ 4,500
Salary of Director	12,000	12,000.00	12,000
Salary of Associate Director	00	4,200.00	8,400
Salary of assistants	12,000	10,133.28	13,500
Administrative traveling expenses	2,500	1,536.04	2,500
Stationery, printing and supplies	1,500	1,298.82	1,500
Telephone and telegrams	500	398.80	500
Postage	600	557.11	600
Furniture and appliances	400	558.00	400
EDUCATIONAL RECORD	4,000	3,668.40	4,000
Industrial cooperation	5,000	4,597.01	4,500
General expense	1,000	1,085.87	1,000
Teachers Annuity Association	600	00.	00
Com. on Supplementary Materials of Instruction	1,500	600.00	1,000
Total	$46,100	$45,088.37	$54,400

Funds for Special Projects:	
Committee on Modern Language Teaching	$ 16,253.02
Cooperative Test Fund	80,465.05
Com. on Problems and Plans in Education	20,865.36
Com. on Personnel Methods, balance April 30, 1931	1,534.96
Payne Fund, balance April 30, 1931	844.33
Total	$119,962.72

Treasurer's Report

AMERICAN SECURITY AND TRUST COMPANY

WASHINGTON, D. C.,
May 7, 1931.

DR. C. R. MANN, DIRECTOR,
American Council on Education,
744 Jackson Place, Washington, D. C.

DEAR DR. MANN:

I herewith submit three statements of F. W. Lafrentz & Company, being audits for the period from May 1, 1930, to April 30, 1931, on the following accounts of the American Council on Education:

General Fund.
Modern Foreign Language Study Fund, New York Committee.
Modern Foreign Language Study Fund, Canadian Committee.

I desire to submit these papers as my Annual Report as your Treasurer for the past year.

Very truly yours,
CORCORAN THOM,
Treasurer, American Council on Education.

GENERAL FUND

STATEMENT OF RECEIPTS AND EXPENDITURES

From May 1, 1930, to April 30, 1931

RECEIPTS

Constituent Members	$2,000.00	
Associate Members	220.00	
Institutional Members	36,350.00	
		$38,570.00
Contributions:		
To National Advisory Committee on Illiteracy:		
John D. Rockefeller, Jr.	$5,000.00	
Julius Rosenwald Fund	5,125.72	
Alfred K. Stern	3,000.00	
National Illiteracy Crusade	1,200.00	
		14,325.72
To Committee on Problems and Plans in Education:		
Julius Rosenwald Fund		5,198.93
To Education on Radio:		
Payne Fund		3,000.00
National Advisory Committee on Illiteracy:		
Refund M. S. Robertson, incidental expense fund		20.61
Sale of Psychological Tests		11,991.61
Sale of Record Cards, Scales, etc.		2,641.66
Royalty from Sale of Achievement Tests		229.50
Refund from Goucher College on Teacher's Annuity and Insurance for D. A. Robertson		510.00
Reimbursements for Administration of Grants:		
Modern Foreign Language Study	$200.00	
Cooperative Test Fund	3,150.00	
		3,350.00
Old Typewriter Sold		25.00
Interest on Bank Deposits		623.48
Total receipts		$80,486.51
Cash on hand, May 1, 1930:		
American Security and Trust Company		29,668.34
		$110,154.85

DISBURSEMENTS

Salaries:		
Director	$12,000.00	
Assistants	10,133.28	
		$22,133.28

Brought forward		$22,133.28
Rent		4,455.04
Stationery, Printing and Supplies		1,298.82
Postage		557.11
Telephone and Telegrams		398.80
General Expense		1,085.87
Traveling Expenses of Director		537.42
Traveling Expenses, Executive Committee		851.91
Publication Expenses, EDUCATIONAL RECORD:		
Expense	$4,020.40	
Subscriptions	352.00	
		3,668.40
Committee on Personnel Methods		5,359.25
Psychological Test Experiment:		
Psychological Tests	$2,811.42	
Thurstone—General Expense	3,976.20	
		6,787.62
Furniture and Fixtures		558.00
Industrial Cooperation:		
C. E. Hewitt, Salary	$4,200.00	
C. E. Hewitt, Traveling Expenses	397.01	
		4,597.01
Payne Fund:		
Salaries	$1,610.00	
Armstrong Perry, Expenses	1,395.67	
		3,005.67
Committee on Supplementary Materials of Instruction		600.00
National Advisory Committee on Illiteracy, Expenses		18,012.33
National Advisory Committee on Illiteracy, Refund of Unexpended Balance		7,637.45
Committee on Problems and Plans in Education		4,134.64
John H. MacCracken:		
Salary	$ 4,200.00	
Traveling Expenses	146.71	
		4,346.71
Total disbursements		$90,025.33
Cash on hand, April 30, 1931:		
American Security and Trust Company—		
American Council on Education—		
General	$16,685.94	
Committee on Personnel Methods	1,534.96	
Payne Fund	844.33	
Committee on Problems and Plans in Education	1,064.29	
		20,129.52
		$110,154.85

MODERN FOREIGN LANGUAGE STUDY FUND
NEW YORK COMMITTEE

STATEMENT OF RECEIPTS AND DISBURSEMENTS
From May 1, 1930, to April 30, 1931

RECEIPTS

Carnegie Foundation	$8,000.00
Interest on Bank Deposits	127.03
Sale of Furniture	15.00
Royalty on Tests	418.55
Royalty on Reports, etc.	197.70
Transferred from the Canadian Committee	2,278.06
Total receipts	$11,036.34
Cash on hand, May 1, 1930	4,364.40
	$15,400.74

DISBURSEMENTS

Salaries and Wages	$1,017.70
Supplies and Equipment	281.39
Printing and Publicity	3,997.64
Communications	123.08
Travel and Meetings	563.50
Expert Assistance	1,444.29
Contingent	230.00
Total disbursements	$7,657.60
Cash on hand, April 30, 1931:	
American Security and Trust Company	7,743.14
	$15,400.74

MODERN FOREIGN LANGUAGE STUDY FUND
CANADIAN COMMITTEE

STATEMENT OF RECEIPTS AND DISBURSEMENTS
From May 1, 1930, to April 30, 1931

RECEIPTS

Royalty on Annotated Bibliography, Spanish Word Test	$213.43
Return of balance of petty cash	148.69
Cash on hand, May 1, 1930	2,425.82
	$2,787.94

DISBURSEMENTS

Transferred to New York Committee	$2,278.06
Cash on hand, April 30,1931:	
American Security and Trust Company	509.88
	$2,787.94

Issues

IMPORTANT things have happened to the Council during the past year. First on the personal side, David A. Robertson, for six years Assistant Director, resigned to become President of Goucher College. I am sure I voice the unanimous sentiment of the Council when I express deep appreciation of Dr. Robertson's constructive service, when I congratulate Goucher College on its new President, and when I wish him a hearty Godspeed.

The Council is most fortunate in having secured the services of Dr. John Henry MacCracken as Associate Director. Dr. MacCracken was active in the organization of the Council and was for a number of years chairman of the Committee on Federal Legislation. On behalf of the Council I extend to him a cordial welcome and assure him he will find here ample opportunity for exercise of all his creative imagination and energy.

The institutional membership of the Council has increased to 256. Ten years ago there were but 126 such members. It then seemed as if 250 were the probable limit. We shall now have to raise the goal to 300.

Since the last meeting the Council has received a grant of $500,000 from the General Education Board for support of a ten-year program of experiment with achievement tests. A Cooperative Test Service has been established with Ben D. Wood as director and headquarters in New York. Reports on the activities of this new enterprise will be presented tomorrow by Dr. Wood and Dean Johnston.

More members and more money mean healthy physical growth. But they do not of themselves reveal the nature of the divine spark that animates and gives vitality to the enterprise. This spirit may be discerned in the actions of the several committees. Their reports this year are of great significance to American education, though that significance may not appear in any one report taken by itself. A common fundamental note dominates them all and gives power and

inspiration to their united symphony. To this note I invite your particular attention this morning.

This common fundamental note was struck by the Council itself at the last meeting when it appointed the Committee on Problems and Plans in Education. The mandate given this committee, you remember, is to isolate and define those educational problems that are critical to the evolution of American civilization and to propose appropriate plans for securing their adequate study. As its report shows, this committee has worked faithfully at its task. It has spent seven full days in session, has staked out several areas of significant investigation, and has set a number of competent sub-committees at work making detailed specifications for fruitful study and experimentation.

Opinions will doubtless differ as to the relative significance of the areas of investigation thus far selected by the Problems and Plans Committee. The question whether or not these problems are the most critical that can be found is, however, of minor importance. The committee is but a year old. Its judgment will ripen with age. The vital point is that a serious effort is being made to determine what problems in education are critical to the evolution of an integrated national life and how those problems may be cooperatively attacked.

The same fundamental keynote deminates the work of the Committee on Personnel Methods. The items called for on the record card and the rating scale are those that seemed to the committee most worth recording because most revealing of personal quality. The Council's work in job analysis has always tried to isolate those elements of action and those qualities of performance that are most critical to successful achievement. Each of the ten sub-committees recently appointed by the Committee on Personnel Methods has been assigned to an area that is clearly of critical significance both in appraising human behavior and in developing integrated personalities.

It may not be so obvious that this same fundamental keynote dominates the new Cooperative Test Service. It is clear, however, that the construction of every achievement test is guided by some conception of what constitutes achieve-

ment in the particular area being tested. The committee in charge of this test service plans to make a thorough analysis to determine what are the critical factors of achievement in each field before constructing new tests in that field. Thus here, also, the effort is being made to select factors that may be worth measuring because they are parts of an integrated whole, before trying to measure any and every old thing that may seem measurable.

The selection of the factors that are worth measuring or recording in any of these technical studies depends on an understanding of the kind of a total situation which the students are destined to face when they leave school. Education must therefore orient itself on the critical issues of present world conditions if it is to reach significant results. The magnitude of this task may best be presented by considering briefly the findings of several fundamental analyses that have been made by agencies for which the Council is not responsible. For this purpose, I present first some of the critical issues defined by the National Advisory Committee on Education.

Following the precedent set by the Constitutional Convention in 1787, the National Advisory Committee on Education first made a careful analysis of the fundamental conditions that must maintain between a federal government and a sovereign people. For example, it is clear that since popular sovereignty depends for its power on self-government, self-discipline, and individual responsibility, it must rely on education as the chief guarantee for its stability and growth. Any action of government that undermines individual responsibility or that weakens self-government is therefore inconsistent with the fundamental American aspiration. In this way basic criteria were selected by which to appraise the evidence that was collected with regard to the results of the older and the more recent relations of the Federal Government to the school systems of the states.

Guided by such criteria as these, the national committee's studies of legislation, of court decisions, and of public statements show that the fundamental justification for education at public expense is the development of enlightened and self-

controlled citizens. In these documents, "intelligence" and "sterling moral character" diffused among all classes of the people are the constantly recurring phrases. In the language of the famous Ordinance of 1787, "religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged." Early federal grants in aid of education were made on this basis. The general schooling then given was sufficient to develop the young people of that time for constructive participation in the conquest of the continent.

But as science and the industrial revolution advanced, that ancient and honorable schooling failed more and more to give the young people adequate control of their capacities to cope with the increasingly intricate techniques of industrial processes. The school men were appealed to in vain. They declined to modify their time-honored practices in the interest of greater skill in technical procedures. Thereupon, the Congress was persuaded to begin to give federal support to schools definitely committed to training in the specific skills required to do specific industrial jobs. This policy has flourished. Vocational schools of all sorts, supported at public expense, have increased rapidly, until now we have a regular school system that presumably trains intelligent and self-controlled citizens and on top of that a publicly supported training system, designed to provide vocational training in particular jobs for those who have left school vocationally incompetent.

The present serious unemployment situation has given impetus to propaganda for more vocational schools that train men and women in the specific skills required for present industrial jobs. We are told that such training is absolutely essential, not only for the economic welfare of those trained but also because our future prosperity is inseparably associated with training for industrial or vocational efficiency. We are told that every unemployed person who needs training to enable him to get a new job should not be denied the opportunity to get such training as he needs at public cost. If workers are displaced by new labor-saving

machinery or by introduction of new industrial processes, they should be retrained at public cost to enable them to secure new jobs in the industrial order. Thus vocational efficiency in the particular jobs required in present industry is set up along side of good citizenship as another fundamental justification for education at public expense.

Is this dual system justified? Will the public school serve the nation best by liberating all the constructive talents of all the people or by training them to meet the specific requirements of present industrial jobs? Which system or what combination of them gives every individual his utmost chance to live a creative life? These are some of the critical questions which must be fearlessly faced and answered if we are to retain those powers of self-government and self-discipline and that sense of individual responsibility which are essential to a sovereign people.

My second example of a critical issue defined by recent fundamental analysis of present conditions is taken from Garet Garrett's article on "Looking in the Ditch" which appeared in the *Saturday Evening Post* last March 14. After reviewing recent industrial development in search of the remedy for the present depression, Mr. Garrett concludes: "Formerly, in the agricultural life, Nature bought all the labor and rewarded it generally as it deserved—sometimes whimsically, sometimes generously, yet, on the whole, in proportion to the amount of intelligence and forethought that informed the labor. Now, since industry has displaced agriculture at the base of the structure, agriculture itself resting upon industry, and taking place above them that vast business of money translation, which we call distribution and exchange; and since, for millions of people who have no access to the soil, industry is the one means of livelihood, it may have become literally true to say that industry, substituting itself for Nature, incurs the unlimited liability to buy labor."

If we would remain a sovereign people, shall industry or shall government be held responsible for giving every worker who is willing to work the chance to earn an honest livelihood? Shall industry or shall government be responsible for

the specialized training of the skilled workers on whose toil the profits of industry depend? How modify regular schooling so that every individual develops more versatility, better control of his own capacities, and greater sense of personal responsibility, so that the need for specialized vocational training may be steadily reduced? How organize industry so as to give every worker greater chance for self-education on the job? These critical issues must be squarely met by education if it is to justify its existence as the bulwark of democracy.

The third sample of critical issues is gleaned from the recent book by John Dewey on "Individualism Old and New." In this Dr. Dewey explains the increasing role of corporations in our economic life and shows how the United States has steadily moved from an earlier pioneering individualism to a condition of what he calls dominant corporateness. This tendency to combination in all phases of life is expressed in the numerous associations which more and more define the opportunities, the choices, and the actions of individuals.

While this omnipresent corporateness, this operating through corporations, dominates our material existence, our animating individual motives are unmitigatedly private. Our conscious ideas and standards are inherited from an age that has passed away. An economic individualism of motives and aims underlies our corporate mechanisms and undoes the individual. Proof of the existence of this fatal split is found in the fact that, while there is much planning of future development with a view to dividends within large business corporations, there is no corresponding coordinated plan of social development. Scientific developments and techniques have been harnessed to the dollar rather than to the liberation and enrichment of human life. Science and technology are utilized for ends of private and pecuniary gain. This subordinates the creative individuality of mind to the maintenance of a regime which gives the few an opportunity for being shrewd in the management of monetary business.

Under these conditions a refining culture will not be developed in America by grafting traditional ideas of art and

beauty on our corporate life. Art appropriate to this age is an art that is sensitive to the technology and science which are the moving forces of our time and that envisages a new expansive culture which they may be made to serve. We must seek to discover what can be done with the machine for the creation and fulfillment of human values corresponding to its potency. Then a new and indigenous American Culture will begin to take form. The pioneering spirit will find its adventures on an unsubdued social frontier. The import of our corporateness will find reflection in the imaginative and emotional outlook on life. New ideals will be framed out of the possibilities of existing conditions through active and alert intellectual recognition of the realities of an industrial age. By planning to use them in behalf of a significantly human life we shall create ourselves as we create an unknown future. Thus we acquire an integrated personality of a new and distinctively American type.

This formulation by Dewey of the critical issues of today is particularly helpful in isolating and defining the problems in education that are worth solving. Schools can certainly do much more than they are doing to liberate science and technology from bondage to the dollar in the minds of the coming generation. Through appropriate education, the spirit of youth can surely be more deeply inspired with enthusiasm for pioneering adventure on the unsubdued social frontier. All our young people need is liberty to express the creative energy that is in them. Given this, they may be relied on to create the unknown future in ways we Olympians wot not of.

There are many other penetrating and helpful analyses of the present world welter. Time limits me to but one more sample, "The Education of the Whole Man" which has just come from the pen of Dr. L. P. Jacks of Oxford. Dr. Jacks is widely known and much read in these United States because his philosophy of the divine significance of labor as the source of all real values of life strikes a profoundly sympathetic chord in the American soul.

Jacks first shows how the booksay and hearsay of current schooling fails to give any genuine conception of vital mean-

ing. It is only when all philosophies and sciences are treated as injunctions to live in a particular way, and avoid living in other ways, that a dynamic relationship between information and action is established. By this means the energy, intelligence, idealism, and courage of an entire community may be mobilized for the socialization of man. Present efforts at socializing man have failed because they have been limited to consideration of the material means of production while ignoring the fact that the grand means of production, without whose cooperation the others are worthless, is the soul-animated body of the human being. By taking account of this fact, education may be transformed from a specialized operation performed by an expert class of schoolmasters on a passive multitude to a process of self-education of the community as a whole. A community must be self-educated if it is to be self-governed.

As a practical matter, the chief difficulty with current educational practice is that most instruction stops short at the book-say and hear-say stage and does not result in the acquisition of skill in one or other of its innumerable socially valuable forms. Skillful activity is at once the most delightful and the most vitalizing form of human experience. It liberates creative powers and guides them by many paths to forms of beauty. The human body is naturally skill-hungry. The human soul finds satisfaction in skillful performance. Thus may the passion for excellence be engendered and developed. And with the passion for excellence at work in a community, Jacks would be content to leave all else on the lap of the gods.

The divorce of book-say information from the injunction to live in a particular way which is implicit in the information, is but one major weakness of present practice. The other is the traditional split between mind and body, between material and spiritual, between God and mammon. Education of the whole man requires a synthesis. Neither the kingdom of earth nor the kingdom of heaven has any real existence on its own account. As separated they are empty abstractions, and the battle between them is a battle

of ghosts. Neither of them is real till you bring them together into a united kingdom of heaven and earth.

As a first step for realizing this synthesis, Jacks recommends that sound physical culture be made accessible along with mental culture to all classes of the community. By this he does not mean more "athletics" but that everyone be taught to carry himself upright, to control the movements of his legs and arms, to breathe naturally, to govern his voice, and to speak distinctly. Such types of physical culture are being developed abroad and are tending to produce a co-education of the mind and body, until there are no longer A-1 minds incased in C-3 bodies. In this way people learn to think with their bodies as well as with their minds. They cease to think in terms of slogans and to determine their votes by the imperfect knowledge they have picked up in the course of a book-say and hear-say education.

Both Dewey and Jacks agree that concentration of attention on such truly vital issues as are suggested by them will have vast intellectual and emotional reverberations. Jacks considers that the struggle will be so stirring as to make it a real moral equivalent of war. Having actively served both in war and in this campaign for socialization of men, I can testify to the validity of Jacks' conclusion. If anyone is bored or discouraged over the crudities of this machine age, he should enlist in the company of pioneers that is skirmishing on the unsubdued social frontier. Tackle any one of the critical issues that have been mentioned. Come to grips with any problem that is really worth solving. And remember that modern version of those pregnant lines of the immortal bard of Avon:

Who steals my purse steals trash
But he who filches from me
    my Godly responsibility
Takes that which him benefits not
    and leaves me poor indeed.

C. R. MANN.

Report of the Committee on Problems and Plans in Education

I AM not thoroughly informed concerning the obscure currents of thought and action that led to the creation of the committee for which I am to report. I am therefore perfectly free to speculate. I surmise that the committee came into being as the result of two independent streams of energy which finally, perhaps accidentally, came together. The sources of these streams of energy were, I think, on the one hand a group of specialists and on the other the officers of the principal educational foundations. I am in the counsels of the one group and can attempt to describe its state of mind. I am not at all in the counsels of the other group. In its case I am only able to guess at causes from the observation of effects.

The specialists have for some years suffered from a sense of frustration. It is not merely that they do not get enough money for educational research—they don't, of course—but that a vast volume of research goes forward every year without results as significant as had been hoped; that the life-blood and the dollars of educational institutions all over the United States are annually poured into research projects which may duplicate one another, which surely are not coordinated, which are never planned with reference to important national ends, and many of which are trivial. The group of specialists whose views I am now trying to interpret have, in and out of season, preached the necessity of a planning board; and the equally urgent necessity of multiplying cooperative research projects such as the Modern Language Study sponsored by the American Council on Education and the work of the Commission on the Length of Elementary Education supported by the Commonwealth Fund. It has not, of course, been the view of these persons that all educational research should fit into some predetermined pattern;

far from it. They know perfectly well that nothing can be more fatal to the spread of the spirit of inquiry than the attempt to control arbitrarily the directions in which it shall exercise itself. But, having admitted this, the fact still remains that there are problems of national or general human scope that do engage the spontaneous interest of investigators and that either are not attacked because of their discouraging magnitude and complexity, or, if attacks are made, these are scattered and relatively ineffective. The natural sciences are organized for cooperation and for the identification of necessary fundamental investigations through the National Research Council. The Social Science Research Council performs similar functions for the several social sciences, aside from education. The investigational interests in the field of the humanities are focused in the Council of Learned Societies. Education, which is related to them all, which in the broadest sense might be said to underlie them all, has neither been adopted into any of these families nor developed central planning machinery of its own.

So much for the views of the specialists. Now I enter the realm of speculation. Aside from appropriations in university budgets, always secured with great difficulty and generally far too meager, the chief source of funds for educational research has been the foundations. Their annual contributions run into many thousands of dollars. Requests for support of research projects, however, far outrun the income of all foundations available for this purpose. The task of judging the importance of projects for which subsidies are asked becomes constantly more arduous and more perplexing. And the actual organization of cooperative research lies beyond the reach of the foundations. The officers of these great trusts must, I am sure, have felt the need of some body which might indicate the types of large-scale investigations most worthy of support; a body which might decide whether there is need of fundamental studies too expensive for any single institution to contemplate, too complicated to be conducted by a single agency, or too remote from imme-

diate practical application to engage the attention of the established instrumentalities of inquiry.

On various occasions representatives of these two parties at interest, the specialists and the foundations, have met and communicated to one another their respective desires and uncertainties. Out of one such meeting somewhat more than a year ago, I understand, there came the proposal that a planning committee be established under the American Council on Education, the one comprehensive national agency concerned with the whole range of the educational process and dedicated to the promotion of institutional cooperation. The Director of the Julius Rosenwald Fund submitted the proposal to that foundation. The Fund appropriated to the American Council on Education the sum of $35,000 to cover the work of such a committee for a period of three years. If the committee proves to be sufficiently useful, the Fund has indicated that the subvention will be continued at the same rate for two more years. Just before the last annual meeting of this Council the committee was organized. Its members were chosen by the Executive Committee of the Council with a view to representing the various fields of educational research. For the sake of the record it may be appropriate to list the present membership of the committee. It consists of President Lotus D. Coffman, Commissioner William J. Cooper, Dean Herbert E. Hawkes, Director Charles H. Judd, Dean Beardsley Ruml, Dean William F. Russell, Headmaster Eugene R. Smith, President Henry Suzzallo, Professor Edward L. Thorndike, Superintendent David E. Weglein, Dr. Charles R. Mann and Dr. J. H. MacCracken ex-officio, and the speaker.

A year ago the Chairman of the American Council on Education said at the annual meeting, "The time has come for the erection of a strong central agency which can formulate the country's needs in educational research and can put an end to the inadequacy of earlier programs. . . . This new committee has been given a commission which is as broad as American education."

Having thus been taken up into a high mountain and shown the kingdoms of the earth, the committee, even in the bright morning of its youth, still had to choose which kingdoms to enter first. At that it set itself no narrow limits. Its preliminary discussions led to the decision to explore the field of educational research, as far as it might be able to do so, with a view to determining first, what large investigations not now being prosecuted may be considered of crucial significance to educational progress, and second, what cooperative researches and experiments may be undertaken with profit if the potential agencies can be brought into contact with one another. As might have been expected, the committee's concept of its task has grown even beyond these very broad limits. Its members have come to see more clearly than they saw before that the major problems of education are related, that often the relationships have been obscured because of the poverty of our resources and the isolation of the workers in the field, and that some formulation of these great problems is needed which will bring out, on the one hand, their inter-relations, and, on the other, their comparative urgency. With full recognition of the limitations of its own insight and judgment, the committee now proposes to try its hand at such formulations.

In addition to these self-imposed or self-interpreted functions, the committee has had another function bestowed upon it within the year. By vote of the Executive Committee of the American Council on Education it is now charged with the review of all projects for inquiry which the Council itself is asked to undertake or to sponsor.

The committee has assembled three times. Only two of the meetings were full meetings. The first, attended by but seven members, was in the nature of an exploratory discussion. No action was taken. It was held at Hanover, N. H., August 29, 30 and 31, 1930, in conjunction with the meeting of the Social Science Research Council. The members of the committee were made welcome at the meetings of the Social Science Research Council and its governing

committees. Relations were established which are already beginning to be fruitful in the committee's inquiries.

The first full and regular meeting of the committee was held at Briarcliff Manor, November 21 and 22, 1930. The principles and points of view which have since guided the committee's discussions and actions were then worked out. It adopted the following tentative formula for analyzing and classifying the projects that may from time to time come under its consideration. I quote from the minutes:

"A. Since many of the definitions of education are triangular and consist of such statements as 'Education is changing people from what they are into what it is desirable for them to be,' the three parts become what people are, what they properly may become, and how to change the one into the other; or the child, society, and the school; it appears that proposed investigations should be evaluated in the light of their relation to three great fields submitted as being essentially coordinate and fundamental—I, The Human Being; II, Modern Life; and III, How to prepare the former for the latter.

Number I (the field covered by the Human Being) comprises all studies relating to human beings, *as they grow and unfold chiefly from within*, their *interests and aspirations*, abilities and disabilities at various stages of life. These studies are based upon psychology, medicine, psychiatry, anthropometry, nutrition, etc.

Number II (the field of Modern Life) comprises all studies that relate to *the world without in which the individual must find a place*, to collective or cooperative life, particularly the needs and problems of the new industrial society into which our world is moving, *and the present or prospective freedom, happiness, and wholesome functioning of the individual in that life.* These studies are based on social psychology, anthropology, sociology, economics, law, political science, *ethics*, etc.

Number III comprises all studies relating to the educational processes of society, *purposed or unpurposed*, including the family, church, vocation, press, theatre, motion pictures, libraries, museums, radio, as well as the school, *by which the inherent growth of the individual is modified by and for society and the world without.*"

As guides to its action, then, the Committee will raise these questions: "A. What is the relation of the problem

or plan to the field of education as a whole? Does it fill a present gap?

B. *To what degree is the problem possible of solution by the instruments and techniques which we possess at present?* Preference should be given to problems or plans, other things being equal, which our technique and instruments can reach.

C. *What will be the cost?* There may be wide variations in the cost of problems and plans equally important and equally accessible to scientific investigation.

D. *What are the best of the possible agencies for doing the work?*"

The Briarcliff meeting set in motion three major explorations designed to formulate basic studies and cooperative experiments in line with the foregoing statement of policy. The first of these enters a territory which at first glance seems to have been well covered, the territory of the administration of state educational systems. Recent happenings, however, reveal the inadequacy of our information, and the tentative and unstable character of our political philosophy as applying to this great function of government. Students of educational administration and students of political science have had small contact with one another. The former have been prone to regard education as if it existed in a political vacuum. The latter have tended to pay slight attention to education as one of the principal political functions of the state and to educational administration as a special form of public administration with its own peculiar techniques, demands and limitations. The importance of a recanvass of this great field of public activity is emphasized now by impending changes in the national government's educational responsibilities, by the creation of new forms of taxation and new units of taxation, by the tendency toward centralization of fiscal control over all state activities, and by the rising tide of demand for more and more varied educational facilities available to persons of all ages from the cradle to the grave. To review this matter afresh and to lift it out of the setting of conventional dogma, a joint committee representing experts in political science designated by

the Social Science Research Council and experienced students of school administration (under the chairmanship of Professor A. B. Meredith) was appointed to propose a plan for a new comprehensive investigation.

The second exploration was in the relatively new field of personnel problems. In secondary and higher education personnel research and the application of personnel methods have recently come close to holding the center of the stage. Inquiries and experiments in great variety are being undertaken. Some of the most important and fruitful activities of the American Council on Education are in this field. The Committee on Problems and Plans, therefore, concluded that the time had come for the preparation of an integrated plan of study of personnel problems. It assigned this task to the Council's Committee on Personnel Methods under the chairmanship of Dean Hawkes.

The third and most far reaching of the exploratory studies was one relating to the physical and mental development of human beings. In the committee's discussions and in its minutes this study has been generally described as "an investigation of the genetic series of intellectual growth, with primary emphasis on the higher mental processes." A subcommittee under the chairmanship of Dr. Charles H. Judd was instructed to lay the foundations for a group of cooperative investigations of this complicated and fundamental problem through the institutional membership of the American Council on Education.

The third meeting of the Committee on Problems and Plans in Education was held at White Sulphur Springs, April 11, and 12, 1931. Substantial progress was reported by each of the three sub-committees just referred to. A tentative draft of an elaborate inquiry in the field of state educational administration was submitted by Professor Meredith and his associates and is now undergoing revision.

Dean Hawkes's Committee submitted ten interrelated projects bearing on the central aspects of the personnel problem. Four of these are already being investigated or are ready for investigation.

The sub-committee dealing with the organization of a cooperative study of the general problem of the physical and mental development of human beings reported a number of steps of special interest to the members of the American Council. A letter was sent to each institutional member of the Council in December, 1930, describing the projected cooperative study and inquiring whether the institution had already undertaken researches relating to physical or mental growth; and whether it cared to participate directly in the proposed cooperative study. Ninety-three institutional members of the Council were heard from, sixty-six of which have expressed a desire so to participate. The sub-committee's inquiries also reveal the wide range of material already covered by research in the various subdivisions of this field, and suggest important coordinations. It is obvious that only the preliminary stages in the definition and organization of the study have thus far been covered. The sub-committee in charge is to continue its work and to present a more detailed formulation of the problem at subsequent meetings of the Committee on Problems and Plans.

Several other sub-committees were appointed at these second and third meetings and instructed to analyze and define other problems in the field of educational research. The omission of these sub-committees from mention at this time should not be construed as depreciatory. Only those projects have been outlined which are approaching definite formulation.

I think I am speaking for the committee when I say that it hardly regards the present statement even as a report of progress. Perceptible progress in an undertaking so large and so baffling must be slow. No dozen persons, however experienced, can quickly overlook the whole field of educational research, occupied and unoccupied. No dozen, even a baker's dozen— as you may have observed if you counted— can quickly and infallibly identify the great central issues. These tasks take time and reflection, and much consultation with others outside the committee's membership. If within the three to five years of its life the committee can formulate

with clarity and definiteness three to five fundamental large-scale cooperative problems or experiments, and interrelate them it may conceivably have justified its existence.

Perhaps you are interested to know who is expected to pay. Investigations, however persuasively formulated, do not make themselves. Nor do they get themselves made without financing. Who is to do the financing? The answer is easy. We do not know. All we know is that there is a great deal of money in the United States. Some of it, we are aware, is in the hands of large philanthropic agencies that are committed to the improvement of American education. Perhaps these agencies may be so impressed by the importance of the studies which the committee is to outline that they cannot refrain from supporting them.

SAMUEL P. CAPEN,
The University of Buffalo.

Report of the Committee on Personnel Methods

IT MAY be of interest to those in attendance at this meeting of the Council for me to rehearse briefly the history of the events which resulted in the organization of the Council's Committee on Personnel Methods.

The interest of the National Research Council's Division of Anthropology in the subject of vocational guidance led to the calling of the National Research Council conference on "vocational guidance in colleges," on January 1, 1925. This conference was attended by representatives of fourteen universities who were constituted an advisory committee with power to increase its membership. These fourteen representatives voted to ask the American Council on Education to be sponsor for the organization and elected Dean H. E. Hawkes chairman of the advisory council and of the executive committee of five which the chairman was authorized to appoint. The original executive committee consisted of Messrs. Hawkes, Holmes, Mann, Scott and Wellman.

A grant from Mr. John D. Rockefeller Jr.'s Benevolent Fund made possible a study of personnel procedure at fourteen institutions by Mr. L. B. Hopkins. The committee then outlined a project with five objectives in view:

1. To inform the colleges and universities concerning the best methods of personnel.
2. To prepare a personal record card.
3. To prepare achievement tests and make available all facts concerning them in an effort to stimulate such testing.
4. To develop objectives and useful measurements of character.
5. To prepare vocational monographs.

For these projects Mr. Rockefeller granted to the American Council on Education the sum of $20,000 a year for three years. The Executive Committee determined to invite the cooperation of scholars in the work of five committees and

to hold annual conferences which should include all members of the five sub-committees. The membership of these annual conferences later became the Council's Committee on Personnel Methods, and the original executive committee, with later additions, came to be known as the Central Committee on Personnel Methods. The achievements of these various sub-committees during the three years from 1927 to 1930 covered by Mr. Rockefeller's grant are already known to the members of the Council, and will be presented in permanent form by the publication of a volume of reports by the Committee as soon as the material can be prepared.

At the meeting of the Central Committee held May 10, 1929, Dean Hawkes reported for the Sub-committee on Achievement Tests that it was proposed to hold a conference of all parties interested in the correlation and administration of achievement tests, and especially in the establishment of a permanent bureau of tests, and

It was voted that it be the sense of the Central Committee that a conference of associations interested in achievement tests be called by the Director of the American Council on Education in the second or third week of June, or at some other convenient time.

At the February, 1930, meeting of the Central Committee Dean Hawkes reported that in pursuance of the ideas expressed at the May meeting of the committee and of a conference called in New York to secure the judgment of the other agencies interested in the development of achievement tests, he had presented to a foundation a request for a national test-making bureau. His conferences led him to believe that this particular foundation might be willing to furnish a subvention to a stable organization like the American Council on Education, with a committee which had common sense such as had been exhibited by the Personnel Methods Committee.

It was voted that it be the opinion of the Central Committee that a proposition be made to the General Education Board to create a test-making bureau under the auspices of the American Council on Education, the governing committee

to be the Personnel Methods Committee of the American Council on Education.

It was agreed that it should be the function of the proposed test-making bureau to prepare tests in basic subject matters for high schools and colleges, to standardize the same, to make scientific interpretations, to act as a production agency of tests desired for other projects. Dr. Ben D. Wood submitted an outline for the organization of such a test-making bureau.

At the general conference held in April, 1930, the members considered plans for the future activities of the committee, and the chairman announced that, although impressed by the vistas opened in the reports of other subcommittees, he would place first the program of achievement test making as outlined in the report of Committee Two, and on motion

It was voted (1) that the American Council on Education Committee on Personnel Methods be continued; (2) that through the Central Committee there be appointed a cooperative committee on educational achievement to have under its direction supervision of the test-making program; (3) that through the Central Committee other sub-committees be appointed to care for other projects of the present committee; (4) that through the Central Committee funds be secured to carry on the work of all the other committees.

Dr. Stevens of the General Education Board was present at the conference and expressed a sympathetic interest in the project. The resolutions of the conference were officially brought to the attention of the General Education Board by Dean Hawkes with the result that a grant not to exceed $500,000 over a period of ten years—to which reference has already been made in the Report of the Executive Committee—was voted by the General Education Board, to be expended under the direction of the American Council on Education for the development of objective achievement tests.

Upon recommendation of the Central Committee the Executive Committee of the Council constituted the Central

Committee of the Personnel Methods Committee for the year 1930-31 as follows: H. E. Hawkes, *Chairman*, W. W. Charters, H. W. Holmes, L. B. Hopkins, C. R. Mann, A. H. Ruggles, D. A. Robertson, and decided that the activities to be undertaken under the subvention of the General Education Board should be conducted under the name of the "Cooperative Test Service of the American Council on Education."

At the October meeting the service was formally organized by the appointment of Dr. Ben D. Wood as Director; of Mrs. Mary W. Garrett as Office Secretary; and of M. W. Moore full-time assistant in charge of English tests; John A. Long, full-time assistant in charge of Mathematics tests; Geraldine Spaulding, full-time assistant in charge of French and Spanish tests; and Ruth McJimsey, full-time assistant in charge of Latin tests. Office space was secured for the bureau at 70 Morningside Drive. In addition to the full-time assistants, provision was made for the appointment of part-time subject matter consultants and editorial critics and for the employment of question makers in Natural Sciences, Social Studies, English and German.

It was voted to ask the Council to add Dean P. C. Packer to the membership of the Central Committee, and to replace Dr. Robertson, who had resigned, by the appointment of Dr. J. H. MacCracken as a member and Secretary of the Central Committee.

At a later meeting provision was made for the appointment of a sub-committee on test objectives (1) to study teaching objectives to be measured from the standpoint of both the professional and general cultural interests; (2) to see that the objectives in the various subject matter fields are listed and studied; (3) to see that the test content adequately measures the objectives agreed upon for measurement. The membership of this sub-committee has not yet been completed.

The chairman of the committee, having secured from the Carnegie Foundation the right to use the tests prepared by the Foundation for the study of Pennsylvania colleges,

It was voted to approve an undertaking to apply these tests in a wider area and to constitute a sub-committee to be known as the Advisory Committee of the Cooperative Test Service, to supervise a general college testing program of sophomores in May, 1932. This committee has been constituted as follows:

J. B. Johnston, *Chairman*, V. A. C. Henmon, C. S. Yoakum, C. M. McConn, F. L. McVey, L. M. Terman, George F. Zook, G. A. Works, G. W. Frasier, S. P. Capen.

Provision was made for visits to various universities and colleges by the Director of the Cooperative Test Service for conferences on the matter.

Reports of the work of the Advisory Committee and of the Cooperative Test Service will be presented tomorrow by Dean Johnston and Dr. Wood.

The Committee on Problems and Plans in Education, having asked the Committee on Personnel Methods to formulate an integrated plan of study of personnel problems for presentation to the Problems and Plans Committee, a conference of the general Committee on Personnel Methods was called for Indianapolis, January 23–24, 1931. As a result of the conference it was decided to reorganize the sub-committees of the conference and replace the five original sub-committees with ten new sub-committees to prepare reports on various aspects of the personnel problem as follows:

1. A Search for Unitary Differential Traits.
   H. E. Hawkes and J. J. Coss
2. Development of Vocational Information.
   C. R. Mann and A. B. Crawford
3. Completion of Professor Strong's Studies in Interest.
   E. K. Strong
4. History and Function of Examinations.
   J. J. Coss, R. W. Tyler, L. B. Hopkins, C. F. Lindquist
5. Character Problems and Extension of the Studies of Mrs. Esther Lloyd-Jones, and Student Counselor Techniques.
   W. W. Charters and F. F. Bradshaw
6. How Far Is the Individual Educable?
   P. C. Packer and J. B. Johnston

7. Extent to Which Social Conditions Condition Education.
   C. S. Yoakum, Grace E. Manson
8. Valuation of Physical Education from the Standpoint of Health.
   D. G. Paterson and C. H. McCloy
9. Elements of Education that Contribute to the Profitable Use of Leisure.
   J. J. Coss and Mrs. Mary Hayes
10. Measurement of Emotions.
    J. H. MacCracken and M. R. Trabue

Each of the ten sub-committees held a meeting and prepared for the Chairman of the Central Committee a written report discussing the significance of their respective projects, outlining the problems somewhat in detail, indicating the methods of attack and the personnel available for their study in each instance. These reports were considered by the chairman and secretary of the Central Committee and Director Mann of the Council, and a general consolidated report presented to the Problems and Plans Committee at its meeting in White Sulphur in April. The action of the Problems and Plans Committee has been reported by its chairman.

The activities of the Council in the field of personnel methods at the present time, then, are entrusted to a Central Committee of eight members (of which Dean Hawkes is chairman and the speaker secretary); and to a general committee composed of twenty-five members as follows:

H. E. Hawkes, *Chairman*, F. F. Bradshaw, W. W. Charters, J. J. Coss, A. B. Crawford, Mrs. Mary Hayes, V. A. C. Henmon, H. W. Holmes, L. B. Hopkins, D. T. Howard, Esther Lloyd-Jones, C. R. Lingley, C. R. Mann, Grace E. Manson, J. H. MacCracken, P. C. Packer, D. G. Paterson, D. A. Robertson, A. H. Ruggles, W. D. Scott, E. K. Strong, M. R. Trabue, A. L. Williston, Ben D. Wood, C. S. Yoakum, and to the Bureau organized under the direction of the Central Committee designated the Cooperative Test Service of the American Council on Education with headquarters in New York, of which Dr. Ben D. Wood is director, assisted

by an Advisory Committee of ten members of which Dean J. B. Johnston is chairman.

As a result of the very generous grant of the General Education Board to make possible the preparation of achievement tests, the activities of the committee the past year have emphasized that particular aspect of their task. The variety of problems suggested at the Indianapolis conference, resulting in the appointment of the ten new sub-committees, shows, however, that the members of the committee have not lost sight of the many sided aspects of the personnel field. A Committee on Personnel is expected to approach all educational problems from the standpoint of the individual student, and to stress the fact that in the last analysis all educational judgments must be expressed in terms of the individual. Since the individual is incredibly complex, any adequate consideration of the personnel field must be complex also. Committees on the teaching of a single subject, for example, may for the purposes of their science deal with an abstraction—a human being whose only business it is to know—but a committee whose chief concern is the individual would lose sight of its reason for existence if it failed to stress the fact that desire, emotion, will and action, are important ingredients of the complete individual, or to bear in mind that physique and character as well as knowledge are important products of any true program for the educational development of the complete man.

JOHN H. MACCRACKEN,
Washington, D. C.

The Cooperative Test Service

ONE of the most important decisions of the committee that organized this work was that we should make haste slowly, and try to be sound rather than quick. Therefore the report on the work thus far can be made rather briefly; and since I shall therefore not use up much time in reporting what has been done, I think I will take a few minutes to recall to you the conditions and origin of this particular project.

I would like to emphasize one word in the title of the Cooperative Test Service, namely, "Cooperative." It is a project that was cooperative in its inception and is more widely cooperative in its present happily gratifying development, and according to all indications and hopes it will be even more widely cooperative in its later stages. Dr. Mann's report, and Dr. MacCracken's paper presented here yesterday, gave you a general outline of the formulation of this project and of its financing by the General Education Board. Dr. MacCracken mentioned many of the men who almost ten years ago cooperated in formulating this project, and who courageously remained aggressive in promoting it year after year in spite of the discouraging fact that each successive year's study of the problem showed that the cost in money and time would be larger than all preceding estimates. He also mentioned a sufficient number of those who are now collaborating in this basic enterprise to convince you that every word in the name of the Cooperative Test Service is accurately descriptive and historically valid.

I am taking this opportunity of emphasizing the nonfortuitous character of the title chosen for our project, because it denotes a principle of educational measurement which will bear a great deal of emphasis. It is a principle that we have learned only after much travail and after long and costly years of groping. But we have at last learned by the hard schooling of "trial and error" that the construction of instruments capable of yielding valid and com-

parable measurements of educational achievement is in its very nature a cooperative task.

The main purpose of this Cooperative Test Service is to supply the colleges and schools of the country with measuring instruments which will yield accurate and comparable measurements of defined achievements. The experience of the last two decades has shown us rather definitely that individual initiative and individual resources are not capable of supplying us with examinations sufficiently good in quality and in number of equivalent forms to meet the requirements of educational guidance. The inadequacy of the examinations now available to us is particularly notable in the college and high school levels. We have had a number of examining agencies in the country for two or three decades and they have rendered notable service; but their experience confirms the statement that thus far we have seriously underestimated both the difficulty and importance of constructing and using good examinations, and emphasizes the great need for the type of large and adequately financed, coordinated effort in which we are now engaged.

The examinations of the recognized examining agencies, although made by intelligent and devoted scholars and scored carefully at great expense, still have the fatal defect of subjectivity both in their construction and scoring. Even the so-called standardized, objective tests that have been available for the last dozen years suffer from several defects which are clearly recognized by their authors. For the most part, these tests have been constructed by one or two or, at most, three individuals without sufficient funds for adequate critical work or for adequate try-out. This lack of funds and of broad cooperation is painfully apparent in the fact that very few of the available tests have adequate norms and that very few of them exist in more than two comparable forms.

The crucial need for valid tests, each in a dozen equivalent forms and each accompanied by meaningful norms, has been made strikingly apparent by the experiences of all agencies and schools that have attempted to keep cumulative records

of achievements of students over a period of two or more years. The discouraging experiences of many schools and colleges over the country are too well known to need mention.

That similar difficulties are experienced even by carefully organized programs is shown by the history of the Pennsylvania Study and of the Educational Records Bureau. You will recall that one of the primary objectives of the Pennsylvania Study was to keep cumulative records of comparable measurements on each of the individuals in the experimental groups that are being carried through a ten-year period, that is, through the high school for six years and through college for four years. That cumulative program has now been going on about three years. At the end of this month we shall have cumulative records for three annual sets of comparable tests on about 15,000 or 20,000 high school and college students in Pennsylvania. But already we are at the end of our program unless new tests are made available, because the tests that are now on the market have been used anywhere from two to three or four times in the same institution and the teachers in these schools simply refuse to give those tests any more. They claim that many of their students have memorized them. Many teachers use these tests as teaching devices, and thus spoil them for measurement purposes.

Similarly, the Educational Records Bureau began its work about four years ago when a group of leading private schools in the east decided that the College Board examinations and the final examinations given at the end of the private school course (the twelfth grade) were both inadequate in terms of reliability, validity, and comparability, and also rather late—too late to do very much constructive guidance for the students in these private schools. They organized this bureau mainly for the purpose of giving comprehensive and comparable examinations at the end of the junior year in these private schools, so that the schools would have the data on their students at least for one year prior to their graduation and probable entry into college.

After trying that plan for one year, the schools very wisely

decided to push the testing back another year—back to the end of the sophomore year; and almost immediately thereafter they went the whole length and decided to institute continuous annual testing of students from the first grade right through to the twelfth grade, and the keeping of cumulative records of those comparable measurements, so that half a dozen or a dozen years hence the private schools having an active membership in that bureau, now numbering about 200 schools, will be able to present to the colleges cumulative records of comparable measurements extending over a period of from six to ten or twelve years, depending upon how long the given student has been in a member school.

But even more important than that, these schools have come to realize that educational guidance during high school and lower school years is much more important and much more constructive than to wait until the end of the high school period, and then simply tell the sheep that they can go to college and tell the goats that they are goats and can't go. In other words, educational guidance depends, in the last analysis, upon two things: one is to find out enough about these youngsters to know what they should try to do; and the second and perhaps the most difficult of all, is to help them mobilize their emotionalized attitudes around ambitions which are for them feasible. That, of course, involves the elimination as soon as possible of the present custom in this country of foredooming youngsters all over the country to certain disappointment.

It is now taken for granted by our indiscriminate adherents of democracy that every child in the elementary school has a sort of inalienable right to go to college. Whether we do that consciously or not I am not saying, but the fact is that most of these children do very early in their school careers simply take it for granted that they are going to college, and the rule is they are not told that they cannot go to college until they come to the college admission office and are rejected, or are accepted and later thrown out as failures. Throughout their twelve years in the public schools, high schools, and elementary schools, until very recently, at least,

there was no one, no agency in our schools to which a student could go and discuss his whole educational problem. In our colleges today, in a few at least, we have such agencies to discuss the matter with students; but in the great majority of institutions, students still may discuss only subject matters, courses, credits, etc., rather than education with members of the faculty. The main reason for this unhappy situation is that the schools and colleges now have little or no meaningful information concerning the capacities, defined achievements, and dominant interests of individuals; and having no instruments or organization for securing, recording, and using such information, they are devoting themselves too largely to teaching courses, enforcing sumptuary requirements in the nature of blanket prescriptions, and policing highly questionable disciplinary regulations, while neglecting the opportunity of learning and meeting the needs of individuals who are to guide the destinies of the next generation.

It was the hope of improving this situation that led us to the central plan of the Cooperative Test Service, namely, to construct in the next few years ten or a dozen equivalent and comparable forms of examinations in each of the fundamental subject matters of the junior college and senior high school level. As to the actual construction of these tests, the work is now distributed among institutions all over the country. The work in the various subject matters is organized in the following centers:

University of Minnesota: English Vocabulary and Literature, in charge of Professor D. G. Paterson and Dr. F. Wf Beers, with the cooperation of Professor E. L. Thorndike o. Teachers College, Columbia University, and others.

University of Wisconsin: English Usage, in charge of Professors Leonard and Willing, with the cooperation of Professor Henmon and others.

University of Iowa: Social Studies (History, Economics, Civics and Government), in charge of Professor E. F. Lindquist and Mr. H. R. Anderson.

Ohio State University: Biology and Chemistry, in charge of Dr. R. W. Tyler, with the cooperation of scholars in several other institutions.

Columbia University: Physics, in charge of Professor H. W. Farwell, and Geology, in charge of Dr. G. Marshall Kay, both having collaborators in two or three other universities.

New York University: German, in charge of Mrs. Miriam Hespelt, in consultation with Professor E. H. Hespelt and others.

The work in the other foreign languages and in mathematics is centered in the main office of the Cooperative Test Service, 70 Morningside Drive, New York City.

Mathematics is in charge of Dr. John A. Long, with the assistance of experienced examiners from three institutions, and cooperation from many other institutions.

Latin is in charge of Mrs. Ruth McJimsey, in consultation with Dr. Kirtland of Exeter Academy, and Dr. Wheeler of the Choate School, and others.

French is in charge of Miss Geraldine Spaulding, in consultation with Professors Coleman, Henmon, Cheydleur, Hoffherr, Vaillant, and others.

Spanish is in charge of Miss Geraldine Spaulding, with the assistance of Professor R. H. Williams of Brown University and Professor E. H. Hespelt of New York University.

Several conferences have been held on the contribution which the Cooperative Test Service may make to the problem of constructing examinations in professional education and in engineering. Recommendations will be presented to the Central Committee at its next meeting for a definite plan of action in these two fields.

A most important element in the plan of all this work is that none of these tests shall be accepted by us or offered to the schools until each has passed through an adequate critical process. In the preceding outline of the organization of the work in the cooperating centers, I have omitted mention of the host of subject matter and technical critics from dozens of other institutions who are now lying in wait, as it were, to pounce upon the products of these workers. The Central Committee has long felt that a major weakness of existing tests has been the lack of adequate critical editorial work, and the committee is insistent that all our tests be

subjected to the most searching and widespread criticism in all their aspects.

The first stage of the critical work will be on the question of content, or curriculum, or objectives. We are, of course, availing ourselves of the work of the various national committees, commissions, and investigations that have recently studied this delicate issue with respect to the several subject matters. But we are going beyond conformity to the pronouncements of these wise groups; we are submitting our preliminary outlines of content as well as the tests themselves to representative groups of critics in each curriculum division.

As a concrete example of the first stage of the critical process, and also as an example of one way in which we hope to keep the educational public informed of what we are doing, I would like to mention an article written by Dr. Lindquist, outlining the whole plan of operations which he and his associates have adopted for the construction of the various tests in the social studies. Dr. Lindquist's article is too long to be described at this time, but I have sent a copy of it to Dr. Mann with the suggestion that it might be published in THE EDUCATIONAL RECORD.

The progress that has been made thus far at these various centers is very gratifying. Except in one or two subject matter fields, we are making headway much faster than we had anticipated. One reason for this rapid progress is that the idea of the advantages of cooperative and carefully coordinated work apparently budded and blossomed in many institutions at about the same time. Many of us have been working on the construction of tests for a decade or more and in almost, if not quite, complete isolation from one another, and with only sporadic help from scholars and critics in the various fields. The results have been unsatisfactory to our critics and almost as unsatisfactory to ourselves. Most of this work has been done as an overtime job; it has been characterized by extensive and wasteful duplication of efforts; and has therefore been largely piecemeal in quality. Several of the most promising test making

enterprises in the last half dozen years have never been carried to a conclusion for lack of funds and lack of help. In the high school and college levels, almost no tests have been produced in more than two equivalent forms. While we and our collaborators in the Cooperative Test Service are acutely aware of the many grave difficulties and problems that confront us, we feel that, with the generous subvention from the General Education Board and the cooperation afforded by the American Council and its various committees, we are at last in a position to make a genuine attack upon these problems, and we are quite confident that within the next two or three years we shall be able to present concrete evidence that some progress has been made in the direction of supplying the colleges and schools of the country with measuring instruments that will carry us one large step nearer to the goal of constructive educational guidance, as well as lay the foundation for more fruitful types of educational research.

Dean Johnston mentioned the fact that members of his committee had visited a number of institutions. Through the arrangements that have been made by the members of his committee, I was able to visit during this last winter quite a number of institutions where I was given the opportunity of presenting the whole matter to the college faculties and to the association meetings of the Southern States and of the North Central and of the North-western districts.

In November I visited the Universities of Minnesota, Wisconsin, Ohio, Northwestern, Chicago, and Pittsburgh, and had very profitable meetings at these places, and everywhere the promise of complete cooperation which has since been more than fulfilled.

In December, 1930, I spent several days at the Southern Association meeting in Atlanta, thanks to arrangements made by President McVey. I talked with a great many individuals, and attended two of the group meetings and explained the whole matter as well as I could.

During that same month of December, 1930, I spoke to

the faculties of the Universities of Kentucky, Tennessee, Chattanooga, Louisville, North Carolina, and Iowa, and visited two other institutions and talked matters over with people who were interested.

In March of this year I spoke at the University of Illinois, and to the faculty of Stephens College, to representatives of the University of Missouri, and of one other college in that vicinity; to representatives of five Colorado institutions, by the arrangements made by President Frasier of the State Teachers College at Greeley; to the faculties of the University of New Mexico, the University of Arizona, Tempe State Normal School, near Phoenix; and to the public schools of Tulsa, Oklahoma; to the faculty of the University of Arkansas; and to a meeting of the North Central Association, by invitation of Superintendent Prunty of Tulsa, who was President of the North Central Association this year. All these arrangements were made by members of Dean Johnston's committee.

In April of this year I visited the following institutions and spoke to the faculties of most of them: Wabash, Purdue, the southern branch of the University of Idaho at Pocatello the University of Oregon, the University of Idaho at Moscow, and the University of Montana, at Missoula and at Bozeman, the Universities of Michigan and Wisconsin.

Just the day before yesterday I had the privilege of speaking to the faculty at the University of Akron and to representatives of several other colleges that had been invited to that meeting by President Zook.

In all these institutions I found the greatest interest in this whole project, with promise of cooperation, and other evidences that we may look forward with considerable confidence to the achievement of the purposes of the Cooperative Test Service as well as of the program of Dean Johnston's committee.

BEN D. WOOD,
Columbia University.

Education and Politics

ONE often hears the hope expressed by good people that the time will come when the schools will, as they say, be taken out of politics. There are two favorite methods of accomplishing the desired emancipation. One is to give the representatives of the public who are immediately responsible for schools very long terms of office. This is the device proposed by a committee of the State Teachers' Association of Mississippi for protecting the institutions of higher education of that state from a repetition of the kind of upheaval through which they have recently passed. It is contended that no future governor should be in a position to appoint a majority of the board of trustees of state institutions. Since the term of a governor is four years, it is a simple matter of arithmetic to put the board out of the governor's reach by making the terms of members of the board ten years.

The other device for keeping the schools out of politics is to insure that school officials shall be very responsive to the will of the people by making them elective officers. It has even been suggested that the superintendents of public schools in cities be chosen through the exercise of popular franchise. This would result in a return to the good old town-meeting plan of choosing the teacher through the collective wisdom of the parents. To be sure, it would probably result in fastening on cities the utterly incompetent type of school government which is now exhibited in many American counties, where the county superintendent is elected by popular vote, and in thirty-three states, where the state superintendents of public instruction are similarly elected. The requirement that county superintendents of schools and state superintendents be elected is, in many cases, written into the constitutions of the states. These constitutional requirements come down to the present from that period in the middle of the last century when there was unbounded faith in the most extreme form of democracy.

To one who makes a careful study of the effects of very long terms of office of members of educational boards as exhibited in the concrete in the experience of New York State with its Board of Regents, the conclusion seems justified that in our rapidly evolving modern civilization flexibility and adaptability are virtues not likely to be secured from any kind of aristocracy. To one who becomes intimately acquainted with county superintendents as a class and with elected state superintendents as a group, democracy in its most unrestricted manifestations is, to put the matter mildly, somewhat disappointing.

The fact is that no possible device can be invented which will rescue public schools from the disadvantages which always attend the operations of collective human nature. Under the circumstances, it will be better for all concerned if we abandon the attempt to evade the issues which arise in the control of schools and frankly recognize that schools cannot be taken out of politics, that they ought not to be taken out of politics, that it will be highly advantageous to keep them in politics, that politics will be benefited by their presence, and that it is the duty of educators to take the lead in asserting the principle that politics and education are intimate and inseparable aspects of public life.

The fact is that politics and education are so closely related that it can be asserted without fear of contradiction that every political campaign, whether it emphasizes taxes or law enforcement, is itself an effort to educate the voters. To be sure, there is much disingenuous argument put forth in the ordinary political campaign, and perhaps one should admit that it would be fairer to say that the effort is, in most cases, to bias voters rather than lead them to the truth, but whatever the terms used in describing political campaigns, the fact stands out clearly that every one of them is an effort to guide the popular mind.

Not only is the political campaign a species of education, but education is always influenced by the political and social views held by a community. If a community is in the hands of a corrupt majority or an ignorant majority, the public

schools will suffer. If the community is properly organized and its interests are faithfully served by its representatives, schools are sure to prosper. We may safely assert that education is the most characteristic expression of a community's stage of development.

This idea that education is something more than the care of children is coming to the consciousness of the modern world in a new and vivid way. Let us consider certain facts which reveal the growing recognition of education as an essential phase of community life.

In September, 1929, the National Industrial Conference Board published a book, entitled "Public Education As Affecting the Adjustment of Youth to Life." The very title of this book suggests a broad view of the meaning of education. The content of the book is no less stimulating than the title. Those of you who have gone through the book in detail will recall that it reviews the problems which confront the American educational system and, in conclusion, recommends that a national commission be created to study these problems. The book argues at some length that the commission suggested should not be drawn from any single class of society because no group dominated by a single interest is competent to cope with the problems of present-day education. The commission should include representative employers and laborers, parents and publicists, educators and welfare workers. It is only through the co-operation of all classes of society that a comprehensive understanding of education can be gained and only through the efforts of all the people that education can be properly organized.

The recommendation of the National Industrial Conference Board instantly takes education out of the position of obscurity, which it has sometimes been thought to occupy, and exhibits it to us as an undertaking of national scope. The Board says to us: Let the best intelligence of the nation be summoned and asked to find a way of so adjusting the training of youth to the conditions of modern life that there shall be an escape from narrowness and meagerness in the thought and action of our people.

One should perhaps hesitate to do anything which may distract attention from the impressiveness of this summons issued by the industrial leaders of our own nation. The fact is, however, that the awareness of the broad implications of the educational program which is beginning to appear in this country has come to a much clearer stage of development in Europe. Europe is stirred to the depths with educational politics. England recently debated with no little earnestness the question whether it could add a year to the required schooling of its youth. The Commons voted Yes; the Lords voted No. In the course of that debate, finance and industry were constantly thought of as directly related to education. The bill was defeated pending the adjustment of public finance. The advocates of the bill pointed out that extension of schooling is a necessary step to put a stop to the unemployment of adults which results in some measure from the competition between older people and half-educated young people who are rivals for the places in industry.

France witnessed a bitter political battle during the last session of her House of Deputies over the question whether the second year of her secondary school, the Lycée, should be made free. By a small majority the second year was made free, thus continuing and extending the policy adopted last year when the first year was opened without tuition charges to all competent young people.

It is hardly necessary to add to these two examples the extreme illustrations supplied by Russia and Italy. In those countries the drilling of nations into new forms of life is frankly recognized as an educational problem. Russia publishes a primer in which the youngest children are instructed in economics through descriptions of the waste which appears on every hand in our competitive unintelligent American industry. Italy makes its young people clean and vigorous by a form of universal regimenting, which we may criticize as over-militaristic but which no observer can fail to recognize as highly effective.

Europe has come to a clear recognition of the fact that education cannot be separated from political and social life.

People must be trained in methods of work, in methods of healthful diet and exercise, in their recreation, and in their appreciation of art, if nations are to survive. The strenuous conditions of modern life have forever banished from the thoughts of European leaders the idea that schools are to be taken out of politics.

Let me pause to say that I am not for a moment arguing that we ought to imitate Europe. I am merely looking for examples to illustrate the statement that education cannot be divorced from the other undertakings of community life.

It is interesting to note that the American people have been forced very generally to recognize one direct relation between education and public policy. Our emergency is not the same as that which dominates European thought and action. With us it is the growing difficulty of paying for our expanding educational system. We listened yesterday, and we shall listen again today, to discussions of public finance and the influence of taxation systems on education. Whether educators like it or not, they can operate only by securing support from the community. Every dollar spent for public education is secured by the schools in competition with the more or less legitimate efforts of people interested in other enterprises to take that dollar and use it for some public or private purpose other than education. It is not only in meetings like our own that these discussions are heard. Many states and cities are discussing school finances quite as earnestly as ourselves.

The painful fact of which one becomes aware when educators discuss public finance is that we are ignorant to an astonishing degree of the economic implications of our whole plan of education. The State of Arkansas is in financial straits. Its schools can hardly exist. A commission was created by the last legislature to devise a plan. The governor has agreed to call a special session of the legislature as soon as a promising plan is presented. At the first meeting of the commission, a document was presented, prepared by the president of one of the state colleges. The text of the plan is too long to quote in full. I will attempt to select typical passages. They are as follows:

At the present time the most efficient schools in the state of Arkansas are operating for 180 working days less the national holidays. The proposed plan would operate the schools for the same number of days but would operate the schools 6 days per week for 30 weeks instead of the present plan which operates the school 36 weeks at 5 days per week. This part of the plan is vital to the success of the reorganization as it will permit the saving of at least 1/6 of the salary budget and will permit a marked savings in maintenance cost. . . .

There is no psychological reason for preferring 5 days per week to 6 days per week. There is, however, a good psychological reason for preferring 6 days a week over the 5 days per week plan. It has been found that pupils who are idle on Saturdays learn habits of idleness as well as other vicious habits. . . .

There may be some opposition to the plan of 6 days per week on the grounds that the teacher needs this time to rest and attend to her personal affairs. This same argument could be used for any office employee or even a wage earner. However, the argument has no weight as all workers, both physical and mental, put in more hours than are required of school teachers. Even in the 6 day plan, the number of hours on duty for a school teacher is only 36 hours per week. The present plan of 5 days per week gives the teacher a working period of 30 hours. The new plan would require 6 days of 6 hours per day which would make 36 hours. In the standards of the labor unions, both of physical and mental labor, 44 hours is considered a week's work and even the labor unions have never asked for less than 40 hours per week. In the case of mental workers, we find that stenographers, bookkeepers, and others in like employment work from 44 to 60 hours per week. Professional men, such as doctors and lawyers, work from 60 to 80 hours per week. Trained nurses, who are required to work 12 hours per day, 7 days per week, are compelled to work 84 hours per week. . . .

The district pays 9 monthly salaries for the same service for which they should pay only 7 monthly salaries. However, as the teacher will actually be giving 2 to 3 days more of her time per month, she should receive a 10% increase in her salary above what she is now receiving per month. She would thus receive for the 7 calendar months the same salary she is now receiving for about 7¾ school months of 4 weeks each. The district would save 1¼ monthly salaries. The school teacher would actually receive an increase in

salary for the amount of time that she serves. This would make a direct savings to the district of 1/6 of its salary budget, at the same time increasing the teacher's salary and getting a more efficient service.

The only possible objection that the teacher could make to being paid by the calendar month and teaching 6 days per week is that she would have some of her present privileges removed and placing her on a business equality with other brain workers of the state. In the past, she has been given undue privileges to which she was not entitled. Of course when these privileges are taken away from her, she will naturally object. However, if the new system is put into effect, the teacher will reap the greatest benefit. She will receive an increase in salary and will have 5 calendar months in which she can attend college or work at some other occupation. . . .

I have quoted at length from this document because it is the product of a man high in position and seriously concerned with a problem which, in a more or less acute form, is today arising in every state and city in the United States. Note the logic which emphasizes the evils of a holiday on Saturday and advocates a suspension of schools for five months. Or note the plan to put teachers at work wherever they can find employment during five months of the year. The development of a strong professional group seems improbable under conditions of employment that would lead to this dual form of occupation. When educators write documents of this kind, one recognizes the impossibility of escaping from politics.

I come back to the assertion made earlier in this paper. Education cannot be viewed in the narrow way which has been too common in the past. Those who are immediately responsible for education should have the courage and the insight to see that they must formulate educational policies with full regard to the facts. Education is a phase of public life. It is a significant part of the life of every community. It is in politics and will always be in politics.

I was greatly impressed, as a member of the National Advisory Committee on Education, with the statement

made by Dr. Suzzallo, director of investigations for that committee. I cannot quote his exact words, but I am sure I am not misrepresenting the remark which he made. While we talk about the danger of setting up in the Federal Government an educational center which will have too much influence, we have overlooked the fact that there are a half dozen federal agencies which now exercise powerful influence in the field of education. Indeed, every federal department is engaged in important educational activities.

Dr. Suzzallo is undoubtedly right. With characteristic American disregard for fundamentals, we debate a question which is settling itself in subtle and unrecognized ways. Education has become a part of public life, and we may argue if we will, but we cannot change the fact.

One more statement in support of the thesis which has been defended in this paper, and then I shall indulge in an exhortation to this Council to take an active part in a new program of direct and explicit participation in politics.

The statement is this: I had occasion some time ago, under the direction of one of the committees of this Council, to invite a colleague in political science to participate in a program of investigation of the organization of state departments of education. In the course of my conversation with this political scientist, I found that he and his immediate colleagues, while aware that there were such agencies as state departments of education, had for some reason neglected to give these departments any serious consideration. One has some feeling of sympathy with the political scientist who finds it convenient to neglect some state departments of education when studying the more inspiring aspects of American government. Is it not clear, however, that the time has come when students of political science and students of education will have to look at these state departments together, whatever revelations may issue from their joint attack on inefficiency?

From illustration I turn to the real purpose of this paper—to exhortation that we organize for action. The exhortation is brief. Educators should see the necessity of cooperation

in the development of effective plans for the conduct of education. We have all been so fully occupied with the routine duties of our several offices and so eager for the success of our particular institutions that we have neglected to participate in the formulation of broad national policies. Let us realize that, unless we devote energy to the guidance of public policy, public policy will be taken in hand by those who would exploit educational institutions as has been done in state after state and in city after city.

No one who sees the domination of educational finance by those who are selfish and narrow-minded, no one who witnesses the repeated interference with expert administration which appears every day in city school systems and in private institutions of higher education can fail to be impressed with the utter lack of organization and cooperation of the educational forces of this country. There is no public official who is so isolated and unsupported as a superintendent of public schools unless it be a president of a state university who has dared to dismiss an athletic coach. We sit in our places and read of legislative attacks on our colleagues, and the strongest move we can make is to express regret, or months after the deed to disapprove the institutions from which our fellow workers were ejected. The trouble in all these cases is that we have not anticipated emergencies by developing strong policies. We are ineffective because we are aloof and tardy in action.

It is not my purpose to advocate the erection of any defense mechanism. I am prepared to advocate an aggressive campaign of direct political attack before we are injured by the inadequacies of our national and state educational organization. We ought certainly to cooperate with the Office of Education in securing and disseminating information. But information must be made the basis of action. The Commissioner of Education has announced a policy which, I believe, we shall all agree is wise. It is the policy of leaving to agencies outside the government the duty of making effective use of the information which the Office of Education collects.

There is undoubtedly a possibility that competent individuals may carry out the Commissioner's program and deal effectively in their localities with some of the problems of educational administration, but there is enormous waste in repeated local attacks on problems which are so general that they are sure to recur in every state and community. I believe that the American Council on Education will some day have a legislative reference bureau which will be prepared to give broad general advice to legislatures on model laws dealing with compulsory education, teachers' licenses, and like matters. I believe that the American Council will have organization plans which it will supply to energetic new presidents of colleges who need something more than the influence of their personal prestige to bring about developments in institutions which are just emerging from states of static lethargy. Plans matured in advance seem to me to have double or treble the value of remedial measures.

What I have been saying does not mean uniformity of educational legislation in all the states or uniformity of college organization. There will always be a legitimate place for local adaptation of plans. Local adaptation will, however, be greatly facilitated if it can begin on the basis of broadly formulated experience.

What I am prophesying is that the American Council on Education will progress much further than it has in the past in the direction of cooperative planning for the improvement of education and vigorous cooperative participation in the formulation of public policies. Our founders were wise in their belief that government needs the cooperation of lay council. The task of our organization differs from that of government. Government has the duty of collecting facts and, after proper bodies have acted, of executing legislation, but the government can never command within itself the intellectual resources necessary for the broadest planning. Furthermore, government cannot dispense with the cooperation which comes through local experimentation. The American Council on Education was organized as a body to work jointly with the government and to focus all the

wisdom that the country has on the solution of educational problems. Ample demonstration has been given, and is in process of being given, that there is a place for such activities as the Council was organized to carry on. What is needed by our generation is the courage to extend the program which was entered upon wisely in the beginning.

The program which is here advocated requires resources. Our colleagues in the natural sciences have made an effective case for their plea that there must be a national body able to promote the development of natural science. Can we not with equal, or even greater, assurance assert that there is need of promotion of educational thinking and planning? To be quite concrete, I believe that the American Council should be put in a position to continue the work of the National Advisory Committee on Education. The investigations conducted by the research agencies, which were provided by the Julius Rosenwald Fund for that committee, are, in my judgment, some of the most revealing and significant contributions which have been made in recent years to the understanding of American life and of the educational organization which issued naturally from our American mode of thought and behavior. The work of the National Advisory Committee ought to be taken up at once and extended by this Council. The work of promoting organization along the lines agreed upon by that committee is a public duty of the first importance. It is not to be expected that the people of the United States will instantly grasp the full import of the recommendations made by that committee. When that committee ceases to function as an official entity, there will be great need for some effective agency to carry on a vigorous campaign of education and to continue the formulation of educational principles. I cannot believe that the cultivation of natural science is more important than the cultivation of general intelligence about the place of education in American life.

I believe that this Council should be put in a position to extend the useful work done by the Modern Foreign Language Study. It should be possible to organize agencies

which shall do for such subjects as English what the Foreign Language Committee has done in its field.

I believe that this Council could very properly and advantageously, in cooperation with its constituent member, the Department of Superintendence of the National Education Association, define the functions of all supervisory and administrative officers in public schools. At the present time the public is very much confused about the status of its experts. It has some hesitation in accepting the judgment of superintendents about their rights and duties because there is suspicion that personal interest will bias judgment. The American Council on Education could render a great public service by contributing to a discussion and settlement of the problems of school supervision in a way to allay suspicion and in a way that would correct existing incoordinations.

Perhaps these illustrations will serve to show what was meant when the statement was ventured early in this paper that education, instead of seeking a divorce from politics, should assert its right to remain in politics and to be heard wherever public interests are involved. If the schools and universities of this country are what they are supposed to be, the intellectual leaders of the nation, they should not shrink from entering vigorously into the most fundamental activity of collective society, namely, the activity of formulating public policies.

CHARLES H. JUDD,
The University of Chicago.

Education Research Committee of Engineering Foundation

ABOUT two days ago, in the midst of the preparation of a budget for the institution with which I am connected, I had a telegram from Dr. Mann, advising he should like to have me present a report of my committee before this body. I wired back that, although I expected to be here, there was no report; and thought the matter was thereby settled.

This morning I found, to my great surprise, although he had salved his conscience by leaving the word "report" off the program, that everything else was expected to go forward as he desired. So I find myself before you with, shall I say, nothing to say?

I discovered also this morning why I was put on the program. Dr. Mann is to be put on the air at a precise minute. It was necessary to have a good-natured and elastic buffer between the matters early in the program which ought not to be abridged and yet which must be stopped at a precise moment for the radio address of the day. I am therefore here to occupy a certain amount of time as painlessly as possible; and if the chairman will see to it that I stop in due season I shall have performed my function.

This Committee on Education Research of the Engineering Foundation finds itself in a peculiar and rather difficult position. We find ourselves surrounded on the one hand by the four founder engineering societies whose powers and capacities are waiting to be capitalized if we are wise enough to see how that can be done to further engineering education, and on the other hand by the S. P. E. E.—Society for the Promotion of Engineering Education—which has occupied this field of engineering education for some years.

Our task, therefore, as we conceive it, is not only to back up each worthwhile endeavor already under way, wherever we see a chance to pinch hit, but to operate largely through

inciting and encouraging the founder societies on the one hand and the S. P. E. E. on the other. It may be that our task will turn out to be almost wholly a liaison task between those groups of engineering societies and yourselves, the S. P. E. E. and others.

We have had a meeting of the full committee which, as in the case of the committee Dr. Capen has reported on, was wholly for exploratory conversation and did not result in action. We are to have another meeting of the committee on the twentieth of this month, at which time perhaps we shall make some progress.

The kinds of things that we have been thinking about are things that may be of interest to you, in which case, if we can, we want to fit whatever we can do into your program. For instance, your Director has been good enough to suggest to us that we can do an important piece of work in the way of a job specification survey of engineering. That is, the founder societies, composed as they are of men most successfully practicing the profession of engineering in its various branches, might be the best group in the country, if by nature they were philosophically inclined, which in general they are not, to analyze and to describe to prospective engineers and prospective students of engineering what the task of engineering is, what kinds of aptitudes and kinds of personalities would find themselves at home in this field and what kinds of things they would do.

That seems to me to be a very interesting problem. It seems also to be a rather difficult problem. I have had a long talk with Dr. Williston about it. Perhaps we shall be able to see our way clear to making a contribution in that field.

Stevens Institute—and this applies not only to the question of job specification and survey, but it also applies to another matter I shall speak of presently—is using the Engineering Camp, which we opened last year for other purposes, for two weeks this coming summer as a place to which to invite young men who have just finished the junior year of their high school or preparatory school course and for whom college is still a year away.

We are going to try to do four things at that camp. In the first place, we are going to try to give them a good time. In the second place, we are going to try to do precisely what I have just been speaking of, to tell them what engineering is all about. We are doing that this year with rather a distinguished group of engineers, such men as Dr. Whitney of the General Electric Company, who has promised to come and talk about research; Mr. Warner, recently Assistant Secretary of the Navy in charge of Aeronautics, who is to come and talk about aeronautics; Mr. Roy Wright, President of the A. S. M. E. will talk about railroading, and so on—a group of fifteen men of that caliber talking on what they think their own particular branch of the profession is, what opportunities it offers, and what the requirements of it are.

We have an idea that after two weeks of that sort of thing, whether the young men get a clear conception of engineering or not, some of us will get a conception of what we can get out of engineers as to what we want to know about the profession.

We propose also to finish up this matter, to give these young men a brief taste of what one single branch of engineering is about, by giving them four or five hours a day of surveying work in the field with instruments; and finally we propose to bring to bear on them all the psychological methods we know how to assemble. Our own Mr. Johnson O'Connor will test each boy individually; Dr. Bingham, of the Personnel Research Federation, will give a group of tests; we will have Professor Jones of Columbia, with his placement tests, and anybody else we can persuade to join us in the experiment of trying out various methods of judging young men on this group of laboratory specimens. Once again, whether the young men find out anything or not, we shall at any rate find out something about the comparative agreement and comparative usefulness of these various methods of attempting to estimate young men.

I listened with much interest this morning to discover whether the program already being carried out by you includes achievement tests in those branches of instruction that ordinarily go to make up an engineering curriculum.

Mathematics? Yes; you already have that. Are you already at the problem of standardizing achievement tests in the elementary branches of mechanical, electrical, or civil engineering, or hydraulics—subjects of that sort? If not, is there any way in which we might step into that corner of the field and, acting as your agents, your workers, help you carry into that field the work which you are already doing in other fields?

There is also, of course, the whole question of aptitude, the whole question of research for unitary mental characteristics, as distinguished from general intelligence, that has been spoken about this morning. It is possible that we might be able to do something to help you in that connection, particularly because of the long experience which Mr. Johnson O'Conner of the General Electric Company and of Stevens has in trying to work out the mental elements that seem to be useful to the G. E. in their hiring of employees. That work has been rather successful, as has been shown by the fact that in the West Lynn works (meter works) of the General Electric Company, employing twenty-five, twenty-six, or twenty-seven hundred people ordinarily (more than half of them women), they managed, after about four years of this testing, to get their labor turnover down to 6 per cent per annum. To those of you who are not familiar with those figures, I would say 60 per cent per annum is not uncommon in American industry; and I know of cases where the labor turnover is well over 100 per cent per annum.

Another thing our committee is interested in is the question of bringing to the engineering schools of the country the most appropriate sort of material, that is, of interesting the right material among preparatory and high school boys in studying engineering. I am far from saying that every first-class boy in high school ought to go to an engineering school; but a great many first-class boys in high school do not go to an engineering school because they do not know anything about engineering as a profession, because engineering, to them, is an overalls, dirt and grease job. Very many of these young men do not think of engineering either

as a useful training or as a profession, because they fail to realize that the essence of engineering as a profession is, at least as I believe, the executive function. More and more engineers are leaving the technical side of the work and are going into the executive side of the work, and are rising to the top of American industry. These young men fail to realize that more and more the engineers of America are finding themselves in a position to contribute largely to a successful solution of the social and economic problems of the community as a whole.

If we can paint that picture to the appropriate young men in the preparatory schools, we can bring into engineering a group of men who ought to be there. Furthermore, the more clear and definite we make the nature of the job of engineering to these young men, the surer we shall be that we do not attract into engineering a lot of young men who ought never to be there under any circumstances. Lots of young men enter engineering schools every year simply, as far as I can make out, because they like to tinker with Ford cars, particularly the old model. I should say engineering is almost wholly *not* tinkering with Ford cars, and if we can make that plain to some of these young men, we may succeed in doing them a service, in steering them into a better sort of education for themselves.

In this connection we have in mind a perfectly extraordinary job that the chemists of America have done since the war in selling chemistry to young men and to the public generally. It is getting so now that chemistry is the most romantic occupation that the young man can think about; and that is true because of a long, very carefully thought-out series of publications, books, pamphlets, magazine articles, circulars of one kind or another, and newspaper articles, which have been sent to the schools by the Chemical Foundation. I suppose Mr. Grady has had more to do with that work than any other one man in the country, and we are therefore edging up to him to see whether we can get him interested in the same sort of thing for engineering.

Another problem which we have discussed was brought

to our attention by one member of the committee as being a most serious problem, and that is the question of the placement and the adjustment of those students whose personalities are a bit queer. I do not think there are very many of them, but never a year goes by that some of them appear—people whose personalities are not properly adjusted to the school and presumably would not be properly adjusted to industry. Of course when I mention that problem I realize that I am talking about a tremendously big problem, a problem very far from what most of us on this committee know anything about, a psychiatric problem, and yet it is a problem that we who are in the engineering business (all of us, whether we are engineering educators or not) are continually faced with—the problem of discovering what is wrong with a personality that does not fail, but nevertheless reacts queerly.

I remember not long ago at Stevens a young man stood absolutely, without any question, at the head of the senior class. I happened to be present at the meeting when students from that class were being chosen for T B II. Somebody said, "Well, the first man in the class is So-and-so." Another put up his hands and said, "Oh, my God!" And that was all that was said. What are we going to do with that kind of a man?

I do not know whether we shall make any progress, but these are the kinds of things we are thinking about.

Recently I attended another conference, the very simple object of which was to determine how American education should be adjusted to the rapidly changing social and economic environment of the country. One evening was supposed to settle that. The first reaction was that we ought to go out and look up statistics about something or other. I was foolish enough to suggest that I thought more philosophy and less statistics were needed at this stage of the game. I was promptly jumped on by all who were present for being a false scientist, a man who did not want the facts because he thought he could sit down in the corner and reason out the problems of the universe.

I still think mine was the right point of view, and the reason why I think so was expressed by President Lowell, who said a while ago that four-fifths of any research job is asking the right questions. He went on to say that most of the research that is done in the graduate schools of the country, at least nine-tenths of it, is done by the faculty and perhaps one-tenth of it is done by the young men and young women who get the research degrees for it.

I feel that this committee of ours must go on that basis, thinking about what kinds of questions it pays to ask, before we pay very much attention to how we are going to get answers to them.

One more thing, and then I am finished. I have spoken about attracting into our particular kind of education (engineering education) the right young men. Precisely the same thing applies to every other type of education in the United States, from the trade school, at grammar school level, up to the new American super university. In each case the problem is to attract into the particular type of education the right kind of student, the student for whom that is the best education.

Dr. Ben Wood whispered in my ear about five minutes ago that the only way to do that job effectively is to follow the individual student through from the beginning as completely as we can, to know as much as possible about the individual student, and then when the time for decision comes—the twelfth year, sixteenth year, or twentieth year (whenever it comes for that individual student) as to which branch of education he ought to go into, it will not come as a crisis in his life, for which he and his advisers are not prepared.

HARVEY N. DAVIS,
Stevens Institute of Technology.

State University Finance

A STATE university official who at the present moment sets out to write of "Whose Money and How Much" for meeting the financial needs of a state university may wonder at intervals whether he is not in a situation analogous to that of a Frenchman trying calmly to consider the future of French culture while the Battle of the Marne was in progress. He may wonder whether the clock is actually turning back to the year when an Indiana legislator declaimed, "I ask no nobler epitaph than 'Here lies an enemy of free schools.'" It is a period of depression for administrators of state colleges and universities, no less than for bankers, realtors, and business men in general.

We should always remember, however, that human movements have their ultimate progress in a succession of flood-tides and ebb-tides, the ebb rarely receding to the last low, the flood generally going a little higher than the last high.

Education, having been in the recent boom years almost always one of the largest items upon the tax bill, it is only to be expected that it should be one of the first objects of attack now that depression gives golden opportunity for politicians to secure the public ear. The woods seem to be full of citizens who in their spare moments of the last few months have learned more about university administration than anyone who has given his entire lifetime to the subject.

Undoubtedly, since all educational processes and institutions are developed and administered by human beings, they have human weaknesses, subject to criticisms and attacks. Who among us cannot see opportunities for betterment all around him? Every member of a quartet, it has been observed, can always suggest, if pressed, three ways in which the organization could be improved—and outsiders can generally see four ways.

Omitting the income from the Federal Government available to colleges of agriculture and mechanic arts, the state

university has ordinarily had three sources of operating income. The first, and much the smallest source is found in gifts, or endowments that were gifts in the past. The second source is student fees, which have ordinarily run from 10 to 25 per cent of the total operating cost. Finally, taxation, voluntarily assumed by the public, has furnished the great bulk of the operating cost as well as the great bulk of capital expenditures. While receipts from student fees have greatly increased in the last decade and a half as, for practical reasons we have been forced farther away from the professed ideal of *free* education, the funds derived from taxation have likewise increased in approximately the same percentage and in vastly greater totals. While the inevitable reaction is now upon us, in my judgment there is not the slightest reason to believe that the idea of higher education largely at public expense has been abandoned, or in any permanent degree weakened.

Every university administrator who carefully looked into the future knew that this reaction would come with the first period of hard times. May I quote from a paper which I read six years ago this month before the Association of College and University Business Officers, in an endeavor to point out the necessity for some form of self-measurement by the institutions of higher learning:

"Methods are being tried in some universities by which it is sought to apply tangible, ponderable measurements to university efficiency. There *is* such a word as efficiency, with proper use, in spite of the disfavor into which crimes committed in its name have brought it. We are all familiar with the 'student-clock-hour,' perhaps the best known of the proposed units of measure. It or its similar has been urged in innumerable quarters. It is established by law for all institutions of learning in the State of Washington. The Educational Finance Inquiry published this year by Macmillan, for the American Council on Education, is a four-pound cudgel which leaves my modestly opposing head bloody but unbowed. The publication makes no satisfying answer to the question which it does me the honor to quote: 'What good results of an actual, direct, practical nature are derived, as shown by experience, from the tabulations?'

"If it be true as we believe that the things of the spirit are inestimably our most precious possessions, then a method which sets up a false standard of values in the spiritual life of our universities is potentially a first-class burglar's kit. For example, 'Ventilation of the Schoolroom' may be a most estimable and useful three-hour course, but I doubt its power to expand or purify the soul. Furthermore, solemn tabulations by which for any purpose the things of the spirit and the things of the body, the wonders of nature and those of millinery, astronomy's scheme of the Universe and plumbing layouts, systems of philosophy and systems for selling real estate are all required to step on the same weight scale, and back up to the same height scale, make one wonder whether some schoolrooms have been worth while ventilating. It might have been better to let suffocation do its perfect work with all hands.

"What are we going to offer in place of this kind of tests by which, unless we do offer something better, more reasonable, the public is going to try to measure us? For whether or not we may like the fact, the public is more and more demanding to know what is actually done with the vastly increasing sums of money voted for higher education. Think what even a 5 per cent annual increase in costs, beginning with present appropriations, will amount to within the course of a few more bienniums! Yet surveys, inquiries, tax payers' associations, bureaus of government, commissions, councils, foundations, chambers of commerce, are already all investigating—and they are all publishing. Their questions are not going to decrease in numbers or in searching quality. Moreover, the vast university graduating classes are yearly infiltrating the public with men and women to whom the inside of a university is not the holy mystery it has been, and is yet, to many well-disposed persons in powerful places. Not so much, perhaps, will be taken for granted in the future. The university say-so may not meet so much acquiescence."

That was written six years ago.

A Hollander friend of mine in western Michigan was entertaining a relative from the old country and desired to show him what a modern American automobile on a modern American highway could do. He asked the foreign cousin to tell him if he saw a motor cop and explained to him what a motor cop looked like. When the speedometer was holding

unwaveringly at 65 miles per hour the cousin beamingly announced to the driver, "Dot little guy is here now."

Great damage is being done in some quarters today to the cause of public higher education, but the public higher education world is not coming to an end; the states have not departed from the idea that it is wise for the public to provide opportunity for each boy or girl to develop his or her best. I have no doubt whatever of the continued support of higher education by the states with some modifications here and there as there must always be. State universities can maintain, or assist in recovery of, their normal health in several ways. May I mention a few?

1. Each institution might well define itself; determine what its aims and its own objects really are. In his recent stimulating book Dr. Abraham Flexner has set up a definition of a university which is quite acceptable to him. But in spite of the fact that he has pointed out manifest absurdities in several present-day American universities, it does not follow that all universities in America should, even if they could, conform to the lines of his model university. But it will be helpful if each college or university has, besides the knowledge that it is on its way, some pretty definite idea of where it wants to go and what the most likely means are for getting there.

2. Far be it from me to advocate any more surveys, but I think a more general willingness on the part of the members of a state university community to submit themselves and all their works to frank, critical, detached examination such as they themselves give to a problem in science or in history would do wonders toward creating and maintaining confidence in the university community by the larger community which supports it. Yet who has not seen scientists, historians, administrators, approach a general principle not in the scientific spirit but under the influence of personal dislike for a colleague arguing for or against the general principle?

3. I think colleges and universities could profit by elimination of principles which, in another field, have brought

criticism upon labor unions. Security of tenure is a matter of first importance, but when it is successfully appealed to (even by that hopeless shrug of the shoulders which means: why try to do anything about this or that situation) to keep in an instructor's chair a man who cannot or will not teach well or lacks the ability or energy to do genuine, promising research, it ultimately brings disfavor upon the institution and upon that kind of higher education. I would call your attention again to the tremendous infiltration of the public in the last two decades with university graduates or former students—shrewd men and women who have formed on the campus their own ideas of the facts as they saw them. These alumni, when reaching places of political power, not infrequently seem to us curiously lukewarm in their support of higher education as compared with support given it by men who have felt its lack all their lives. After we have made all allowances for cases of selfishness and ingratitude, all allowances for those who are willing to put political advancement above everything else, I am nevertheless of the opinion that loyalty of alumni and other citizens is sometimes cooled by a correct belief that examples could be found of men who justify poor teaching by research that in competent eyes is no better than the teaching. Further, if the university has nothing that a staff member can do or will do well for the benefit of the institution, it is unjustifiable to claim for him or accord to him a tenure almost as insurable as that of the north star, even though a few years earlier he may have been engaged on a basis assumed to be permanent. I am not referring to men whose best days are over; men who have actually had "best days" are entitled to every possible consideration through their static or declining years. But what other kind of organization could carry the dead wood that institutions of higher education now carry, and survive? Responsible departmental groups, chairmen, deans, and presidents have a real duty, sometimes shirked somewhere along the line, especially to steer into some other field young men, whose tentative teaching *and* research do not show genuine promise.

4. There should be more insistence on the willingness and ability of the student to do his part and more attention to the orientation of the student into the part which actually is *his*. I am not urging any wholesale barring of entrances and opening of exits for the student body with mere keenness of mind, as the one test, especially as determined only by preparatory school records or by psychological tests. Maturity and power come slowly to some. Not merely state universities but all universities may for a long time, perhaps always, well carry a considerable number of students not so quick of mind as their fellows but possessors of that imponderable thing which for want of a better name we call character which will ultimately give more influence to their beckoning little fingers when public opinion is to be led than to all the showy power exerted by a brilliance the public has not yet learned to trust.

5. I think the universities need to drive toward what may be called a golden mean of publicity—something as far from the ballyhoo that is sometimes heard as it is from the aloofness that is never heard but whose chill is felt. The ideal man for interpreting the institution to the state has probably not yet been born; certainly he is not yet around in numbers. He ought to be second only to the professor of philosophy—the *old-time* professor of philosophy—in breadth and depth of his knowledge and weight of character, and second only to the president in the dignity and honor of his position in the community. As I said, I think he has not yet been born. In all seriousness there is need for a better understanding of the fact that true education is not merely vocational or professional, if it is such at all. I hope that my grandchildren, if not my children, may live to see the day when it will excite no comment but will be the common thing for college-bred men to go into the mechanical trades, into farming, into the garages and hangars (not merely as patrons bringing in cars and planes that they don't know enough to repair), in fact going into *any* respectable means of earning a livelihood, with their chief reward in life the breadth and depth of intellectual

freedom into which their education has brought them. A horse can be trained to earn his living; only a man can be educated.

In the sixth place and finally, I think, to repeat what I have said before, that the commonwealths which have for from fifty to one hundred years watched the development of education at public expense will not withdraw their support and entrust higher education to organizations dependent for support on other than public sources. In certain professions the cost of education, in time and money, has already mounted to such a figure that many graduates feel they cannot afford to take their services where these services are most needed. The cost of this education must not be increased to the student. Moreover, by some means or other (I do not know how in these days of antipathy to preaching even if we grant that preaching *ever* was effective), the spirit of altruism must be restimulated or reawakened. There must be developed in the mind of the student and prospective alumnus a genuine sense of his responsibility to the public which has paid a great part of the cost of his training. Maybe the best way for college communities to develop a genuine sense of social responsibility in the prospective alumnus is still the ancient and humble way of example.

The confidence of our commonwealths in us as state universities will never be withdrawn if we get, as we all know we really need, more of that something—by whatever name—that will give us the inner certainty that, with all modesty, we *deserve* more of the kind things sometimes said about our devoted and superior selves as university communities. We *need* events that will relieve us from any disturbing knowledge of small quids of results for large quos of expenditure. Actually meet these conditions, and our universities will be unassailable.

SHIRLEY W. SMITH,
The University of Michigan.

Sources of Financial Support for the Liberal Arts College

I BEGIN with a parable: Three streams came together to run a mill. Neither of the streams alone could have turned the mill. The three combined could do so only with difficulty. At length the patrons of the mill wanted more grist and of greater variety and better quality. The miller enlarged his mill, installed modern machinery, and hired specialists to do the grinding. Then the water was not sufficient to make the wheels go round. The miller explored the sources of supply. He found there was water there in abundance if only it could be guided into the channels that led to his mill. The obstacles were many and required kinds of labor for which he had not been trained. Necessity however, proved again to be the mother of invention. The miller overcame the difficulties. He employed pumps—suction pumps and force pumps. He made water to run up hill. He drilled wells and got gushers. Down to the mill came floods of water. One of the streams flowed constantly and he allowed it to go over the wheel. The second stream he impounded in a great dam to help out day by day, and especially in dry seasons. The third he found to be intermittent, used it as it came, but did not depend upon it for regular grinding. This is the parable of the mill and the three streams.

Since the greatest user of parables explained one of his very plainest, I may do likewise. The mill is the college. The miller is the president. The first stream, whose flow was constant, consists of student fees. The second, which was impounded into a dam, is endowment. The third, which was intermittent, is composed of gifts for current use. I assume these to be the sources of income of which I am to speak.

The Liberal Arts College is ingenuous in American life. From the earliest days to the present it has been associated with the aspirations and the enterprise of a liberty loving

people. Its growth has been coincident and coextensive with the expansion of the nation. The seventeenth century gave us two such institutions; the eighteenth century gave us twenty-one, seven of which were founded prior to the Revolutionary War and fourteen after the war, toward the end of the century. The first quarter of the nineteenth century gave us twenty-four; the second quarter, eighty-five; the third quarter, one hundred and ninety-five; and the fourth quarter, one hundred and forty-five.

As an instrument for attaining very precious American ideals, the college of liberal arts has gone wherever the people have gone. It gave stability to our frontiers and helped build them into permanent communities. In much the same spirit, colleges are being founded today in our enterprising municipalities. Back of the founding of most of these institutions was a fervent religious impulse which lived and found expression in their teaching bodies and was influential in the development of strong Christian character in the students. It has been most fortunate that the American college has developed thus in close relation to the life of the people. Out of it has come the leadership, both local and national, that has contributed so largely to our success.

The result is that the liberal arts college, as an institution, is permanently builded into American civilization. It is too deeply cherished to suffer the peril that has sometimes been wished upon it by persons not in sympathy with its place and purpose in our educational system. More than that, unless it fails to fulfil its mission under the new demands that will be made upon it, the college of liberal arts seems unquestionably destined to a more important place in the future than it has held in the past. All signs point to the fact that we are emerging upon a cultural era. The jazzy, wise-cracking, comic strip character will quickly pass. The world will again sober up, become reflective, think deeply, and produce works in philosophy, literature, science and art that will endure. With this in view, it is no mistake to richly undergird our great American universities. They

will become the educational centers for the whole world, and those who today are lavishing upon them vast endowments are doubtless building better than they know. In that age the liberal arts colleges, too, will come into a sphere of usefulness more true to their historical tradition and their essential character. Increasing numbers of youth will seek, within their walls, preparation for life. To educate them properly for their part in a day when the world will again be seeking the true, the beautiful, and the good, and will be fabricating a new and better society, will require resources that most colleges do not now have. Our topic, then, "Sources of Financial Support for the Liberal Arts College" has significance for the future as well as for the present.

The securing of funds represents only half of the problem of financing an institution. The wise use of funds represents the other half. Success in the former depends upon success in the latter. Whether students through their fees, or benefactors through gifts, furnish the money with which to run the college, the fees or gifts will be slow in coming unless those who supply them have confidence in the fiscal operations of the institution and are sure that the funds will be administered with due profit to those for whom the benefits are intended.

As indicated in our parable, the sources of financial support for the liberal arts college are three: student fees, endowment, and gifts for current use. We shall consider them in order.

1. *Student fees.* It should be kept ever in mind that education is a philanthropy. The costs of education do not, therefore, represent the value of education, but merely the expense involved in maintaining the philanthropy. Education itself is without price. Students probably understood this fact better in the early days when they paid no fees and education was given them at a cost met wholly by others. The principle is that education should be supported by society because it benefits society. But the members of society receiving the most direct benefits are the students, and they, or the homes they represent, should help meet the

costs. Never, however, should they think that in the payment of fees they are paying for their education. They are really making a fixed contribution toward the cost of providing it. It is now definitely accepted that, as far as possible, students should contribute in the form of fees toward the maintenance of the institution which ministers to them. From the administrator's viewpoint, student fees constitute a regular constant and dependable form of income.

There has been much discussion in recent years as to what proportion of the costs of maintenance the students of a college should bear. Inasmuch as this forms a topic for consideration later in this session, I shall touch upon it only lightly. Mr. Trevor Arnett and Dr. Donald J. Cowling are the contemporary authorities on this subject and they do not wholly agree—at least they did not agree as late as 1927.[1] The policy followed by nearly all colleges since 1920 supports the view that student fees should more nearly approximate the actual cost of providing collegiate education than had formerly been the case. The pursuit of this policy has been brought about partly because many students attend college today mainly with a view to increasing their earning power. Since what they spend in getting an education is looked upon as a business investment for profit it is held that the investor should pay the costs. Furthermore, on account of the vast increase in the number of wealthy families, many college students can easily pay the entire cost. On the other hand, the liberal arts college has a responsibility not only for educating youth but for conserving civilization and adding to the sum of useful knowledge. For this service, families other than those only who send students, should contribute. The more widely the members of society share in the support, the more extended will be the benefits which the college will confer. This leads to the consideration of our second source of supply.

2. *Endowment.* The argument for college endowment does not rest upon the mere necessity of having a reservoir from which to draw in times of misfortune or distress. Our institutions of higher learning represent a cause—the improve-

[1]Bulletin. Association of American Colleges, February, 1927, p. 80ff.

ment of mankind. It is a cause of infinite significance. The day will never come when this cause will be fully met. One achievement in the advance of civilization opens the way for another. Education, as represented in our liberal arts colleges and in our research institutions, is no merely temporal affair. The idea of providing for this work in perpetuity is therefore necessary and logical.

A factor in the present situation, calling loudly for increased endowment of our colleges, is the mounting costs of conducting them. Mr. Darrel Boyd Harmon has given us a chart showing the relation between costs of higher education and gifts to higher education.[2] Beginning in 1910, when the costs were $85,000,000, they have risen steadily until, in 1926, they had reached $500,000,000. The line representing gifts is far below that representing costs but follows in general the same curve. During the war there was a drop in gifts, but the curve more than recovers itself during 1918 and 1920. It was about this time that the General Education Board dispensed a large sum for Mr. Rockefeller in an effort to stabilize professors' salaries. From 1920 to 1926 the curve of gifts does not conform at all to the curve of costs. From this it appears that the raising of student fees in recent years has not been a matter of mere theoretical policy but of stern necessity.

A situation that needs to be brought to public attention is the inequitable distribution of college endowment. Giving has been generous beyond all precedent, but it has followed no law. As a result we have very rich institutions carrying restricted loads and very poor institutions struggling with unrestricted loads. Furthermore, without intending it, no doubt, educational endowments have become piled high in certain areas while in great wide spaces of the country the bestowals have been small and far between. The government statistics for 1928 show fifty-eight privately controlled institutions with endowments exceeding $3,000,000 each. The total holdings of these fifty-eight institutions is $724,325,236 (1928). A striking fact is that twenty-three of them, having endowments aggregating $318,935,347—

[2]Social Science, April, 1931, p. 109.

almost one-third of all the endowment money in the United States—are located within the bounds of two adjacent states and within an area circumscribed by a circle having a radius of only 200 miles. This area has a right to more endowment than any other because of the density of its population. However, there are vast areas of our country having thickly settled populations also in which there is not a single institution having an endowment of as much as $3,000,000. Dr. A. N. Ward made a study of the endowments of 400 colleges and universities in 1929.[3] Of these he found that ten had endowments aggregating $340,133,000, or an average of $4,364 per student; the next ninety possessed an aggregate of $298,377,000 or $1,613 per student; and the remaining 300 held endowments totaling $152,624,000 and averaging $840 per student. Dr. Ward makes the deduction respecting the whole body of institutions of higher education in this country, that one-fourth of the students in America are being educated with three-fourths of the endowment and the other three-fourths are being educated with one-fourth of the endowment. Philanthropy has been so identified with business that we may well indulge the hope that, when the inequity of the present situation becomes known, business judgment and the American sense of fair play will largely correct it. The Liberal Arts College Movement, organized by a large group of educators at Chicago in March, 1930, is endeavoring to inform the public with reference to these matters, and should have every possible encouragement. Certainly the three-fourths of the students of our land who must get their education under a handicap not at all of their making should have consideration at the hands of the giving public.

3. *Gifts for current use.* In the early days colleges were supported almost wholly by this means. Being sponsored by religious bodies, they were kept up as a matter of benevolence. But the day has long since gone when a college can be supported by periodically passing the hat. As indicated in our parable, this source of supply is not dependable enough to build a budget on, except in such cases as those

[3] Liberal Arts College Bulletin, 1930, p. 2 ff.

in which the gifts are gotten through a regular church apportionment the returns of which have been pretty definitely determined through previous experience. Some incomes of this kind are sufficiently assured to warrant standardizing agencies in regarding them as equivalent to income from endowment.

Aside from current income from churches and societies through fixed levies, gifts for current income are gotten mostly on solicitation for emergencies and, for special projects, from individuals. Even boards of trustees who used to come to annual meetings prepared to make up deficits, have now adopted the budget system and expect the fiscal officers to keep within the budget. Friends of the institution can still be counted on, however, in cases of emergency or in making provision for extra or unexpected expenditures. Appeals in behalf of an unfortunate student, or to hold an especially desirable professor, are not likely to go unheeded.

The college should by no means neglect this source of income. Benefactors who contribute regularly during life are likely to make provision by will for the income to be kept up after they are gone. The cultivation of givers to current needs thus has bearing on the building of endowment.

Exploration of the headwaters whence flow the streams of financial support for the liberal arts college will reveal that the supplies are abundant. Student bodies are becoming more appreciative, as the weeding-out processes dispose of the parasites, and are willingly taking their larger share of support through increased fees. Benefactors, in times of financial depression more than in times of prosperity in business, reflect on the things that endure as compared with those that pass away, and develop interest in spiritual rather than in temporal values. No group of establishments handling vast sums of money have a better reputation for honesty and frugality than the liberal arts colleges. They deserve and, I believe, will receive the support necessary for full and efficient service in the years that lie ahead.

GEORGE L. OMWAKE,
Ursinus College.

Costs of Adult Education in Urban Universities

WHEN Dr. MacCracken asked me to appear on this program it occurred to me that as a representative of the Association of Urban Universities I might speak to the general conference topic [i.e. "Whose Money, and How Much for Education"] on a characteristic activity of the urban university—adult education of college and university grade. I do not refer to extension work conducted off the campus or on it. Nor do I wish to include that newest form of interest in adults—alumni education. I wonder whether this activity has not been misnamed. If the holders of bachelors degrees have not, after four years in college, acquired intellectual habits which will make for progressive self-education, then, it seems to me, there is little likelihood that we shall do much in the way of educating them now. If all of this concern for the alumni has an objective measured by increased endowments, would it not perhaps be better to call this activity "alumni cultivation."

I shall confine my remarks to work offered on the campus in the late afternoon and evening for degree credit. It should be pointed out that much of the other work is no less respectable even though it does not happen to count toward a degree. Not infrequently articles appear in which the authors seem to imply that adult education is an untried experiment. In the urban universities of Akron, Buffalo, Brooklyn Polytechnic, Cincinnati, Cleveland College, Drexel Institute, Pennsylvania, Pittsburgh and Toledo, 30,507 adults were enrolled during the first semester of this academic year; and this is but a fraction of the total number, as is evidenced by the fact that some of the largest of the forty-odd institutions in the association do not appear in the list just named. These universities are finding in the adult population of their metropolitan areas a vast field of educational opportunity.

This work has expanded so rapidly and so unobtrusively

that in some of our institutions the administrative officers and the regular faculty have been quite unconscious of the magnitude and the significance of the undertaking. The association is firmly convinced that the time has come when we should invest time and effort, and money, if it can be found, in studying some of the problems which we are facing. Such problems as these (I shall select a few from many to be submitted by our committee on cooperative study):

1. In what ways, if at all, should adult college courses differ from the usual college courses?
2. What is the comparative effectiveness of large and small sections when taught by different methods: (*a*) lecture, (*b*) text assignments, quizzes, discussions, (*c*) problem and project methods with reports and discussion, (*d*) laboratory work?
3. What methods of study do these students employ? What are we doing to cultivate better methods of study? How can more effective methods be taught?
4. How do the results in these courses compare with those of equivalent content in the best colleges, measured by objective tests?
5. What defects in the previous education are preventing adults from continuing their education, or are handicapping those who try to continue?
6. A general study of mortality in adult classes.

Now these are not new problems in education, but a solution for the regular undergraduate may not, and often does not, represent a solution for the adult student in night classes. For example, many, if not all, of our engineering schools have a prerequisite of calculus for the course in machine design. The Director of the Evening Session at the University of Pittsburgh, finding that this was an effective barrier to the enrollment of apparently qualified students for the course in machine design, got his mathematics and drawing departments together, and they discovered that all of the calculus required in the machine design course could be taught in three class sessions. The prerequisite has been removed (in the Pittsburgh evening session), and the three hours of instruction in calculus are given in the appropriate places in the machine design course. Incidentally

this director has reduced his night session mortality from 57 to 14 per cent.

The wording of the topic of this paper would naturally lead you to expect that I should deal somewhat with statistics. I had intended to do just that. However, I know full well that one of the reasons for the vitality of this comparatively small organization is the fact of the uncontrolled individualism of the constituent institutions. As a matter of fact, probably the only influence which tends to breed uniformity in this work is the necessity of retaining a status of minimum respectability with the accrediting agencies. I thought, therefore, by limiting my topic to (1) dollars and (2) students enrolled in adult classes I could secure comparable data. My brief and, as I thought, specific questionnaire of thirteen items reveals only more evidence of our heterogeneity.

Some of us keep a separate budget for this part-time work, while others budget it with the regular day work. Some of us use our day session staff exclusively and do not consider this part-time teaching, others supplement the night staff with qualified men outside the ranks of regular college teachers, still others go about the recruiting of their staffs as though the night school were a separate institution; in every instance, however, there is some evidence that at least a few members of the regular day faculty are considered qualified to teach in the night session. Here, of course, we approach dangerous ground, because for extra pay many a man is willing to teach more than the fifteen or sixteen hours permitted by the North Central and other accrediting agencies. There is a wide variation in the academic value we attach to our offering. The range is from 100 per cent of the courses offered for degree credit down to 0 per cent. Whenever we cannot, for one reason or another, grant degree credit for this work we generally award a certificate. Some of us are adhering to the more general practice of making a sharp distinction between the part-time and the full-time student, while a few of us are attempting to erase these distinctions as much as possible.

In one significant aspect there is uniformity among these institutions, and the report of it will probably be unique here this afternoon. Whose money and how much for education? The answer is: the adult student's money and all of it for education. In the eleven colleges and universities named earlier in this paper the fees collected are in excess of the instruction costs. In several of the institutions the budget is made up on the basis of anticipated fees. In a few instances the income from this source does not pay the complete running expenses of the night division. In one university there is a surplus from part-time students' fees which helps to carry the regular day session.

It is interesting to note that our fees range from $3 to $10 per hour of credit. The lower fees are to be found in the publicly supported institutions. Speaking for one of the municipal universities, I feel certain that were we to raise our fees to $10 we should exclude many worthy students. Professor Reeves has suggested that a good index of the quality of the work of a college is the amount spent per student. On this basis some of us would make a poor showing. There is a mitigating consideration, however. Tradition plays a rôle here. Some of us who are paying relatively low salaries to instructors in these classes are not at all sure that the salary scale is a reliable index of quality of instruction. We got started with a low salary scale because our fees were low. We have increased fees gradually and the resultant slight increases in salary were greatly appreciated. Cleveland College, to cite an example of another type of institution, had no traditions whatsoever; they started out a few years ago with a ten dollar per credit hour fee and their 8,000 students pay it with better grace than do our Toledo students the four dollar fee where the memory of a one dollar fee still persists.

Here, then, is a field of educational endeavor which, if we are to believe some recent voices, has reached Utopia because the student is paying the full cost of his education. It should perhaps be gratifying, in this year of 1931, to be able to make such a report. The depression will not pro-

duce embarrassing deficits because our directors have learned to cut the pattern to fit the cloth. The offering for 1931–32 will vary with the number of students enrolled.

I am loath to evaluate this situation as entirely satisfactory. We are all convinced that there is vast ground for improvement. Furthermore, there is a vast reservoir of potential college students not yet being reached. I believe it was Dr. Mann who placed before us that study of the 55,000 records on the Army Alpha test. If, as he pointed out, we are to consider those who could make A or B on the test as potential leaders, and I think it fair to assume these would be capable of pursuing college work and that it is desirable that they should, we are far from exhausting our student material. Not a few of these A and B people are coming to us as part-time students.

It would seem that society has, or should have, just as much interest in the education of these superior adults as it has in the training of children and youths. The fact that these people are earning, while frequently children and youths are not, does not appear a sufficient reason for discriminating against the adult to the extent of insisting that he shall pay the cost of his education. I think most of us who are attempting to evaluate our effort are inclined to believe that this is an unfair discrimination against the adult. We are convinced that society would get large returns from funds invested in adult education on the college level.

HENRY J. DOERMANN,
The University of Toledo.

Financing the Public School System

ADMINISTRATIVELY and financially speaking, there is no such thing as an American public school system. There are something over 150,000 school districts, each of them acting as a quasi-corporation of limited powers and rather well-defined rights, directed and held in check not by competent executive boards but by statutory enactment and judicial interpretation. Thus, the one great public enterprise which by common consent lies at the basis of our democracy, and which in the aggregate spends more than twenty per cent of the total federal, state and municipal revenue, is organized, governed, directed and administered under the political conceptions of seventeenth century England. In the smaller communities of the United States, "taxes" practically means school taxes, so preponderant is the cost of carrying on public schools.

Many if not most of these local civil agents of the states are in that unhappy condition which in the language of the street is expressively termed "broke." That is to say, they cannot carry the burden which under current social and economic conditions must be carried and escape the penalties which are associated with excessive taxation. By excessive taxation, I mean not that state of mind in the taxpayer which payment of the annual tax bill engenders, but an economic condition in which the tax base is in process of destruction. Generally speaking, the school districts which are prosperous are those residential communities to which the prudent retire, in order to escape the importunities of the urban tax collector. The unfortunate farmer, however, has no escape. He becomes the tenant of the state and all too commonly is but rack-rented.

And yet this condition obtains in a country, and in forty-eight commonwealths, each of which is probably capable of maintaining any kind and extent of free and universal pub-

lic instruction which is economically justified—justified in the broad economic sense rather than fiscally justified.

The Possibilities.—The condition in which we find ourselves is the result of the failure of the state to keep pace with rapid social evolution. The state, in dealing with twentieth century society is using the political appliances which were appropriate to the simple frontier, agricultural society of the early nineteenth. Nobody invented the condition. It is not the result of a sudden popular conviction that the "people" must have more schooling. That anthropomorphic being called Society has issued no decrees. The evidence, as I think, is entirely clear that the rapid piling up of enrolment which lies at the basis of our financial troubles is the result of increasing release of labor hours which has followed the increasing count of horsepower per man in industry. No doubt there is also in the picture the school habits of the American people. The average American youth has a strong tendency to go to school when there is nothing better to do.

Apart from the restriction of immigration, this school enrolment is and has been the largest factor in preventing the growth of a huge labor reserve, and a turning back of wages to the level established in the earlier phases of the Industrial Revolution. There are today between four and five million children in school who in 1890 would have been for the most part competitors in the labor market; there were in 1890 over two million on the labor market who today would be in school. Even granted the wildest estimates of the extent of unemployment in this present depression, these figures seem to me to be impressive as bearing upon what would be the effect on wage levels if it were not for the schools. Professor Douglas has recently shown very impressively that, on the whole, wages have kept pace with increasing value product in industry. He does not, however, note the close parallel between the period of rather steady improvement in the condition of wage-earners and the period of rapidly increasing high-school enrolment, which has taken several millions of 'teen-age children off the labor market.

Now wages represent by far the largest factor in purchasing power, and indirectly by far the largest factor in the popular

income out of which taxes are paid. More than that, the expenditures laid out in schooling the youth of the nation do not constitute a depletion of the popular income; they become a part of the popular income. Despite the frequent warnings issued by income economists, the reading public, and not a few writers, insist on treating this fascinating new concept of national income as if it were our Uncle Samuel's bank account. Not a matter of quantity but a matter of relationship is involved. Viewed from the national angle, or even from the angle of any one of our states, the critical question is not, Is there enough money for schools? but rather, How does the public-school system tie into the general economic and financial structure? It seems to me that the evidence is fairly clear that the school system is an integral part of the structure and that it is as unreasonable to question the ability of the United States, or of any of the states, to maintain an adequate and proper school system as it would be to find fault with the organs of digestion on the ground that the body cannot afford the blood supply essential to their tissues. By "adequate and proper" I mean the school system which comports with the industrial structure whatever the system may factually and rationally be determined to be. So long as there is productive capacity enough to liberate pupils and teachers from participation in primary production the system thus constituted is economically feasible.

The statement which I have just made is so at variance with the indications of much current statistical work that it calls for some defense. Those who pay attention to the matter at all are familiar with tabulations which show how much more wealth or popular income per census child there is in one state than there is in another. On the face of things, it looks as if some of the states at least are not able to support their school systems or any system which is implied by modern conditions. The trouble with such reasoning is that it regards the quantitative and not the relative aspect of the matter. It overlooks the fact that if there is a relatively high ratio of taxable ability to census children in a given state, there will tend also to be high cost of schooling

in that state. Within broad lines, high popular income in a given region is the effect and not the cause of high, or at least expensive, standards of living. Great masses of popular income are found in the great cities, but it is precisely in these communities that living costs, and by consequence school costs, are also highest. It is a commonplace of public finance that costs of government tend to increase faster than increasing population. If it were not for the abominations of our tax system and of our district system of support, the fortunate states would be those which are basally agricultural with a moderate industrialization founded on their own products, rather than the densely populated industrial and commercial regions—states like Iowa and Kansas, let us say, rather than Massachusetts, New York or Illinois.

The Problem.—And so our problem as a nation and as states is essentially to understand the economic, political and fiscal organism of which the school system is a part, and to adjust the very human mechanisms through which we govern, administer and finance the system.

Purpose of the Schools.—The foundation of any such adjustment seems to me to rest in clarity of conception of what the school system is for. On this issue we have an immense amount of judicial reasoning which is clear and convincing, provided you accept the fundamental doctrines upon which the American Democracy rests. Free and universal schooling does not exist for the benefit of the individual but for the safety of ordered society. It is not for the good of the people—a concept which may be stretched to include anything and everything—but for the advantages of civilized existence.

Unrestrained Expenditure.—Now one of the most impressive things about the last thirty years, a period in which fiscal resources ought to have been conserved to the utmost in order to bear the strain of increasing enrolment, has been a veritable debauch in school offerings. It is not easy to define the citizenship school, but it is not difficult to list innumerable school expenditures which have scarcely any conceivable relationship to the justifiable purpose and object of tax-supported schools. For a century past, and increasingly in the past generation, we as a people have been

sensibly drifting away from democracy in the direction of an extremely awkward kind of communism, and in our present fiscal difficulties we have exhibited some of the characteristic products of all communisms. There is exactly as much justification for trying to present the public with free food and clothes, and the business man with free capital, as there is for sundry offerings in our schools and tax-supported universities. People cannot live by taking in each other's washing.

This is an example of expenditure which would be unjustified on any theory and practice of revenue. Another example is mismanagement of expenditure, and the crown of mismanagement is in misuse of the credit mechanism.

Misuse of Credit.—Some people are wont to deplore our predilection for bricks and mortar, meaning schoolhouses. Doubtless there has been, especially since the war, a good deal of extravagant building done, and extravagance is a vice. Nevertheless, when the schoolhouse is completed, it is commonly a real asset and often a distinct contributor to educational values. The rub comes in the fact that it is usually bonded and thus a load is thrown on the tax mechanism which is several times as large as it need be. It would be but a sorry business enterprise today which failed to carry some form of depreciation reserve against its fixed capital. Business has learned that there is a time element as well as a cash element in value. If those who have gone before had realized the truth of what we know today, and had prudently liquidated all costs as they accrued, the buildings which will have to be replaced this year would burden the tax mechanism with but a fraction of what will now have to be laid out.

There is small use in crying over spilled milk, and this milk has been spilled indeed; but we can everywhere begin now and make the financing of schools twenty and thirty years hence a more feasible matter.

Enrolment is still increasing and it will probably continue to increase for many years to come, especially at high-school and college level. Every child added to the enrolment entails a capital commitment. Sooner or later we must erect

an additional building. We commonly postpone the inevitable as long as possible and then bond. The result is that we burden the taxes with an excess of from perhaps 5 per cent to 50 per cent, as compared with what would be true if we placed in reserve annually the commitment originating in the enrolment of the year.

Of course the most indefensible use of credit is that which originates in failure to balance the budget and borrowing on operating account. The effect is that in due season an astonishingly large percentage of the current expenditure is interest cost.

An Obsolete Political Unit.—Nevertheless, if money in hand were administered with impeccable wisdom and prudence, it would still be impossible to finance the system with the form of political unit which we still employ, namely, the school district. These fragments of fiscal glass, tile, or what not, with which we try to build a financial mosaic which has meaning and integrity, belong to an obsolete condition of society. They were hopelessly and recognizably out of date in Horace Mann's time, and that was a hundred years ago. The critical difficulty about them consists in the principle that few if any of them are, or ever can be, economic units. They do not manufacture, transport and consume their own products. From the smallest rural district to New York and Chicago, each tends to have a specialized type of popular income, and taxation bears upon the income with all sorts of different effects. It thus comes to pass that any one of these districts, all of them engaged in a common civil purpose, may and commonly does act as a veritable parasite on its neighbors. All but a few of the states, on the other hand, each of which is an aggregate of school districts, are to a greater or less extent economic units or are potentially such. The United States as a whole is, of course, the most remarkable instance in the world today of economic unity in a single organized state. It follows that the districts cannot utilize whatever fiscal resources they have. A state made up of such cannot utilize its own resources, for the obstacle of undistributed overhead is present, recognition

and remedy of which lies at the base of the financing of all modern industry.

Innumerable attempts have been made during the past half-century to cure the malady by symptomatic treatment in the use of distributive funds. Undoubtedly much good has resulted, but it has not been in the direction of the better utilization of state and national fiscal resources. The problem is insoluble by that method, simply because a long list of variables is involved which do not belong to any one system. The underlying fallacy, one not uncommon in the present state of the social sciences, consists in the delusion that society or the state is after the nature of a chemical compound, the structure of which can be analyzed, reduced to mathematical terms, and thus manipulated.

Despite the bungling attempts of state legislatures to solve the problem comprehensively, Nature has been trying to show us the remedial way for a long time, through the tendency made manifest in the slow and detailed evolution of the larger administrative and fiscal unit—in the city or township district first and later in the true county or regional district, or state unit. Delaware, Maryland, Virginia, North Carolina and Utah seem to me to be the states which are on the right road.

Obsolete Taxation.—But even if we had the ultimate consolidation and a business administration equal to that of our best-managed corporation, we should still be unable to utilize our potential fiscal resources, by reason of the barbarity of our fundamental tax, the general-property tax. I suppose that the general-property tax was never a rational method of measuring a man's taxable ability—at least they thought it was not in colonial days,—but in the days when the frontier school district was the appropriate method of administering schools the land tax was at least a workable form of taxation, for there was little income which did not originate in land. That was long, long ago. Today, the great bulk of our taxable ability is in commercial, professional and industrial incomes. Such incomes are not typically associated with property as agricultural incomes are asso-

ciated. Where property is utilized in production, as it is in manufacturing and merchandising, the property tax becomes part of the cost of doing business and it is recovered in the price of goods. The farmer, on the other hand, cannot throw off his tax.

We pay our taxes out of income, no matter what the indicia may be. It necessarily follows that income is the best measure of taxable ability and that the assessed value of property is no measure at all. In making this statement, I am not unaware of the principle that property owes public obligations as property, quite independently of ownership. Such, for example, are street and sewer assessments in cities, and assessments for rural drainage works. But this is to quibble. The vast bulk of our state and local revenues originates in current taxes and not in capital assessments. The practical effect of using the general-property tax as a measure of ability is largely to exempt those who hold no real estate and greatly to overtax home-owners of small income. Of course the farmer's plight is a mere outrage.

But this is not a plaint over the age-old injustices of taxation. We are concerned rather with the utilization of our resources in the increasing service of public instruction.

Every tax has a tendency to destroy its base, or dry up its source. In brief, if you tax beyond a certain point, you will collect less next year, and the principle is as true of excessive federal surtaxes which the millionaire may have to pay as of the taxes of the small farmer who has to let his farm be put up for sale. The general property tax is of all taxes most prone to show this destructive effect on its base. I have seen New England towns which had literally and visibly been taxed out of existence. Numerous studies show that small taxpayers in very large numbers, who derive their income from the property which is taxed, are customarily taxed to the full extent, not of their true net income but of their cash net income. Of course the personal property tax is so notorious as not to need mention. If the ordinary personal property tax were honestly and efficiently administered, it would confiscate the greater part of income

from securities, and from royalties and annuities treated as property.

Now when the public school revenue, that which meets altogether the largest of state and local expenditures, almost universally rests on a form of taxation which persistently destroys its base, and which exempts the taxable ability of most urban income earners, it is scarcely surprising that we find it difficult to maintain popular education at all.

Of course the way out is through the development of state income taxation and the support of the public-school system entire from that source.

I am suggesting no recipe for good schools. In the end, good schools are produced by competent and diligent teachers and school officers and not by money. In the present connection we are not even interested in good schools; we take them for granted. We are rather interested in the financing of an enrolment which under modern industrial conditions is, after the restriction of immigration, our primary means of taking up technological unemployment, maintaining wage levels and utilizing for the benefit of society our enormous productive capacity.

In bringing this paper to a close, I venture to bespeak a larger interest of scientific men in the problem with which we have been dealing. For many years, I have been impressed by the unawareness which political economists and political scientists exhibit that any such problem exists. And yet here is an expenditure of more than a fifth of our total federal, state and local revenue—far more than that proportion of the state and local money. Further, the expenditure has to do with a function which indisputably lies at the basis of our whole social structure. It is primarily an economic and political problem. As an educationist, I feel justified in assuring my neighbors in other fields that public instruction is not altogether a matter of psychology and methods of teaching.

HENRY C. MORRISON,
The University of Chicago.

Gifts for Education

I HAVE been honored by being asked to say a few words to you here this afternoon on the subject: Gifts for Education. While I have been given no hint by those who assigned me this topic as to what I should say about it, I feel that it was expected I would take the affirmative side. I do; so that, to this extent at least, I shall doubtless have your agreement; for I assume that not only are all of you also for gifts for education but that many of you are most actively for them.

Moreover, gifts for education is a subject in which the whole country—both men and women who are able to make such gifts and public opinion in general—has long taken an affirmative stand. It is one of our popular boasts that ours is the age of philanthropy. We have often heard our early twentieth century compared with pride to the great thirteenth century period of cathedral building, as the age of college building.

Certainly the facts warrant such characterizations. A few years ago there was published a list of the great incomes of the world. The largest income in the world, as we might suspect, was that of the United States Government. The second largest was that of the government of the British Empire. The third largest income in the world—larger, according to these figures, than that of any other government or organization—was the income of American philanthropy. Moreover, the largest share of this income—more than $800,000,000 per year, more than $2,000,000 a day if these figures are correct—represented gifts to education.

Personally, I find it easier to grasp the significance of figures of such vastness by taking them piecemeal as applied to individual cases. When I was an undergraduate the total financial assets of Yale were something like $5,000,000 or $6,000,000. Today—and I don't feel that that was so long ago—Yale's assets approach $100,000,000. In other words, in the past twenty-five years Yale has received some fifteen

to twenty times more gifts for education than she had succeeded in accumulating in the whole previous two hundred years of her history.

Some few years ago I made a comparison of the financial assets in 1900 and in 1925, of twenty larger colleges and universities. The increase for many of these during this period was some five to tenfold, and that did not include the last five golden years.

I have not found comparable figures for the numerous smaller colleges, but we know that numbers of these have present financial assets as large as were those of many of the major colleges a generation ago. I happen to have seen recently the statement of a certain smaller rural college. This institution has increased its financial assets in the past twenty-five years nearly tenfold and is now contemplating a fund-raising campaign which, if successful, will make its increase over the quarter century fully as great as that of Yale or, I think, of any other of what are sometimes called specially favored institutions.

Indeed, one of the most significant facts in regard to our age of philanthropy—this age of college building—is that its beneficiaries have not been limited to institutions of any particular size or kind or locality. They have included the Harvards and Columbias which have become immense and important through generations of growth. They have included Duke in the South, Leland Stanford on the Pacific Coast, and Chicago, halfway between, each more or less made to order on an immense scale. They have included Carlton College with its classical ideals, Peabody College for teacher training, Tuskegee Institute for industrial training of negroes, and numerous others, equally diverse as to locality and aim. Surely we can ask for no more convincing demonstration that America as a whole, and wealthy Americans everywhere, both believe in gifts for education and stand ready to carry out that belief in financial action.

On the other hand, all of us know of many institutions which have had little or no share in this unprecedented general educational prosperity. Not a few such institutions

have almost literally starved in the midst of this general plenty. Many have continued on a bare hand-to-mouth existence. Why has this been so? Why have certain institutions of every size and kind everywhere been able to tap this veritable gusher of philanthropic munificence while other institutions just as needy, and often seemingly just as deserving, have not? No particular answer to such a question is, of course, possible except on a case by case basis. But is there any general answer?

I believe there is such a general answer. I believe there is a fundamental reason, back of all various detailed facts and conditions, why some institutions succeed at fund raising and other institutions do not. Moreover, I think that this answer is comparatively plain and simple if we can get away from the complexities which surround it. In order to try to get you to see this answer as I see it, as simply and plainly as possible, I am going to invite your attention for the moment away from the field of education and at the same time begin to suggest the answer to this one question by the well-known Yankee device of asking another.

Why is it that one *business* is able to borrow money at the bank, sell its securities or otherwise get ample financing for such improvements and enlargements as it thinks it needs, and so can grow and prosper, while another business, in spite of plenty of money available, cannot command it, thus cannot improve and enlarge, perhaps cannot continue to exist?

Contemporary with our present age of philanthropy and college building and, of course, chiefly responsible for it, America has gone through a period of hitherto undreamed of economic prosperity. Our national wealth and income has grown to fabulous heights. We have piled up our gold reserve and our capital reserve till it has become a problem to find ways to invest it. Many businesses of every kind in every part of the country have taken advantage of this situation of abundant and cheap capital to re-equip, to enlarge, to get rid of bonded indebtedness and otherwise to put themselves into the strongest position for continued growth and profits. Yet during this same period many other busi-

nesses have continued on a small and often hand-to-mouth existence because they could not get capital; and many have failed, at least partly, for the same reason. Why, with capital abundant, can one business get it and another not?

To this question the general answer is plain to all of us who know anything about the fundamentals of business.

While individuals may risk their money to start or to nurse along unproved business ventures, the banker, the underwriter, the investor, who control the great reservoirs of capital necessary for the continuance and development of business, have established, on the basis of long and varied experience, two basic conditions precedent to all loans and investments. Thus, while different investors under various circumstances may be influenced by a variety of things, every experienced banker and investor, under all circumstances, will in the last analysis base his decision as to loans or investment in any business primarily on his judgment as to these two fundamental questions:

First: Does the product or service which the given business produces for sale—whether this consists of fertilizer or fountain pens, farm tractors or perfumery, telephone service or what not—does this product or service meet some actual and potentially growing need in the market in which it is sold?

Second: Have the men in charge of that business the type or types of ability to produce that product or service efficiently and to sell it successfully in that market?

Where the management is sound the banker or investor may advance limited amounts of money to correct the product. Where the product is right they may advance money on the condition of changes in management. Various other considerations will have their weight under various circumstances. But out of the combined experience of the business world it has become second nature for every man who has accumulated and kept money and so has money to invest to ask first and last these two fundamental questions—Is the product right?, Is the management sound?, before he puts his money into any undertaking.

Thus the leader of a business not only thinks continually of how his product is meeting the needs of his market, and of how it can be made to meet more needs or meet these better; he not only thinks continually of how, through improved production or sales or other management methods or personnel his business may be made more fundamentally valuable; but he plans continually how—through his advertising, in his dividend record, in his record of profits taken out as against profits plowed back, and in many other ways—how he may be able most convincingly to demonstrate to the banker and investor, when the time may come, that his product and his management thus warrant investment in their larger possibilities. For he knows that not only must his product and management be right but that he must be able, concretely, to convince these professional doubters that this is so.

Already your minds are doubtless running ahead to the parallel you now expect me to draw between this situation of the business man going to the investor for financing to improve or enlarge his business and the situation of the educator going to the philanthropist for gifts to improve or enlarge his college.

But I am not ready to draw such a comparison yet, for my point is that this is not just a comparison. I have not elaborated this business analogy merely for the sake of illustration or to argue by analogy. What I want to emphasize is that the business man seeking the investor's financing and the educator seeking the philanthropist's gifts are not merely in a more or less similar position, but fundamentally they are today in exactly the same position.

This, of course, has not always been true. It is not always true today in individual cases; but we cannot afford to let older experiences and minor exceptions blind us to the facts as they are now.

American philanthropy has passed through various stages. Some of the most famous pioneer philanthropists gave with the keenest judgment and on the soundest business principles. No one can study the history of the Peabody Education Fund, for instance, without realizing that George Peabody

used a banker's care as well as a great banker's vision in deciding how the vital public service he contemplated could be most practically accomplished and in assuring that the management of that service was in the hands of men of ability commensurate with their opportunity.

Others of our greatest philanthropists early gave or established agencies for giving their money on the principle that such giving should be regarded as merely a different form of investment. This involved trying to apply business methods to a new field of unfamiliar facts and a different type of personnel in regard to which it was not always easy to find a sure basis of business judgment. But by establishing and maintaining, to the best of their ability, the basic investment principle of putting their money only into those efforts which they regarded as adequately managed and which promoted some specific public service which they believed warranted such investment and from which they could expect concrete dividends in greater human welfare, they have pioneered the way which American philanthropy as a whole has since taken.

Meanwhile, the development and organization of our economic resources continued to produce more and more men of wealth, and philanthropy grew, and grew widespread, accordingly. Without attempting to analyze the special combination of factors derived from American traditions, contemporary environment and human nature which inspired so large a proportion of Americans of wealth to give so large a proportion of that wealth for public service, it is sufficient to point out that certain of these factors made it almost inevitable that a large part of this earlier giving should be chiefly on an emotional basis.

We can, most of us, remember back of this present age of youthful self-indulgence to the preceding age of parental indulgence and there revisualize that type of selfmade man who lavished advantages on his children on the grounds that he wanted them to have everything he himself had not had.

Much of our earlier educational philanthropy was more or less similarly motivated. Such a motive was particularly praiseworthy in its desire to give to others what the giver

prized the more because of his own lack of it. But by that very attitude the giver admitted, at least subconsciously, a gulf between himself and his own experience and judgment, and the different world into which he was sending his gift. Such an attitude precluded any attempt to judge the substantial merits of the institution to which he was giving or of the specific purpose for which his gift was to be used. He was merely giving for education as a vague generality—something he approved of largely because he didn't have it and didn't understand it. But comparatively few gifts for education can be secured on this basis today; and no college can afford to depend on that kind of gift unless it is willing to accept an itinerant hand-to-mouth existence.

In my opinion the war and post-war fund-raising "drives" marked the decisive turning point in the psychology of American philanthropy. This does not, of course, apply to certain leading foundations or to many individuals who have always given with definite discrimination, but it is true, I think, as regards the general point of view toward giving.

During the war, Red Cross, Liberty Loan and other drives followed and re-followed each other in almost continuous succession, all of them based primarily on emotional appeal. After the war such drives multiplied for almost every conceivable object, and each seemed to outdo the last in sound and fury. People in general got tired of such methods of appeal. Moreover, almost every man able to give had not only been repeatedly subjected to every sort of device of fund-raising appeal and pressure but a large share of them had served on various fund-raising committees and had seen the whole operation from the inside. Philanthropy was thus no longer something apart—outside their range of experience and thinking. And, as they thought, they could see many things to criticize from a business point of view. Their business judgment suggested to them to consolidate appeals, so they created the Community Chest idea. Their direct activities in fund raising started their interest and thinking about the management of the institution which they were thus helping. All this applied more largely to local charities

than to institutions for education; but, once business men became accustomed to exercise their business judgment in connection with giving to one cause, it became inevitable that they should do it in connection with all causes.

Moreover, there is a changing or recently changed general situation which applies particularly to gifts for education. Until a very few years ago the men who had made, and were in active control of the great fortunes of America, were overwhelmingly non-college men. Of the twenty leaders who were said to dominate American industry, transportation, and finance some ten years ago, but one had been to college. Today the situation is substantially reversed. Not only are the sons of these men, who have inherited much of their wealth and influence, substantially all college graduates, but the same thing is largely true of the men who are making and controlling the new wealth of the country. And while the college man may sometimes give with little discrimination to help his own college, he will doubtless feel he is particularly qualified to judge the merits of the problems of other colleges toward whose solution he is asked to contribute money.

Finally, as philanthropy has developed, the best principles and practices in giving, as evolved and established by the experience of certain leaders, tend to become more and more widely accepted and adopted. No principle as to giving has been thus more widely emphasized than that giving is a form of investment to be regarded and safeguarded as an investment. No practice in connection with giving has been more tenaciously held to by these leaders or has grown into more general acceptance than the practice of judging every request for gifts primarily on the strict merits of the specific purpose for which the gift is asked, and of what they believe is the ability of those who are to handle this money and carry out this purpose, to do both efficiently.

This in itself goes a long way, in my opinion, toward answering the question as to why in this age of philanthropic munificence one institution can get ample gifts for education and another seemingly cannot.

It explains to my mind why so many liberal arts colleges, which have no strong body of rich alumni, are in the financial plight so many of them are.

The liberal arts college is the foundation of our whole system of higher education. For generations its value was accepted without question while departments of science, schools of technology and other later educational developments had to win their way.

The alumni of Yale College, Dartmouth, Amherst, and their host of powerful friends assume—and rightly so—the value of their particular college and exercise their judgments in giving merely as these are asked for various phases of its development.

Medical education, pure science, biology, various technologies have for years been advancing their claims in season and out with piled-up, specific demonstration of their value. They have prospered at the hands of modern philanthropy accordingly.

I should like to see a comparative study made for the college—the liberal arts college, as we now have to term it to make the distinction. I should like to see studies made to find out how many of our hundred or our thousand leaders of medicine were merely medically educated and how many are also college men. I'd like to see similar facts for our lawyers. I have the facts for a half dozen of the men who control our industry and finance; I'd like to see how many of the heads of 100 largest corporations are college trained compared with those technically trained. Then there are the dramatists and poets and others who contribute to the joy or other mental or spiritual satisfaction of living.

I would like to see various other studies made of our colleges and the part they are playing in modern life—but made not from an abstract or academic point of view but so that he who runs may read and may understand.

I have no idea that, if all this were done, philanthropists would thereupon rush forward with gifts for liberal arts education—as a whole or for various liberal arts colleges individually or collectively; they wouldn't. But such in-

formation would serve as a high-light background to throw into bolder relief each such demonstration as individual colleges may be able to make of their opportunities to render particular service and of their special fitness to render it in any attempt they may make to secure the specific amount of money with which to do this.

For, as I tried to emphasize in connection with the financing of a business, not only must the product be right and the management sound and able, but it must be possible to *demonstrate* both facts to men whose business it is to doubt.

Moreover, the college has this more complex problem. It cannot depend for its continued financing on demonstrating its opportunity for service and its fitness to render that service to any established banking or investment underwriting organization. On the contrary, each institution must depend chiefly on individual—on many individual men of wealth whom it must seek out individually, convince separately that it merits their philanthropic investment in its future and among whom it can build up a sort of more or less fixed syndicate of financial underwriters to whom it can turn in its need. As its financial needs increase it can only hope to get such mounting capital through continually increasing the size of this syndicate.

To create, maintain, and increase the number of such a syndicate of financial underwriters, and potential underwriters, on a scale adequate to the needs of the given institution, is half, often more than half, the battle in fund raising.

This statement and much else I have said makes it evident that by the term "fund raising" I am not referring to the "drive" campaign, which begins with a so-called "list" of prospective givers and devotes itself to a concentrated, high-pressure effort to get the most money quickest out of such a list. On the contrary, I mean by fund raising an institution's whole program for financing its development.

Fund raising, however, is not the topic I have chosen to discuss. I have preferred rather to emphasize certain things which I believe are fundamental conditions precedent to successful fund raising, not only because of the importance

of these things but because too often they are not given sufficient consideration in connection with fund-raising plans. But because of their relation to fund raising, because of your doubtless more specific interest in fund raising than in mere conditions precedent to it, I might perhaps in closing devote a minute to trying to relate what I have said as to what I think an institution should do—the actual steps that are needed—in starting a fund-raising program.

Given such a situation as I have outlined as the condition precedent—namely, that the given institution is rendering a specific service, with specific opportunities for greater service, and is rendering this service efficiently—the first step toward fund raising consists, in my opinion, of a *visualization* of the whole situation and its potentialities. Someone must dream a dream and paint a picture in terms of service which can be an inspiration, first, within the institution itself, so that its various activities will begin to translate themselves in the same terms of service. Such a vision must be with clear-seeing eye; the picture must be painted with craftsmanship in terms of realities; the inspiration must be based on its full nine parts of perspiration. For, as I have tried to stress throughout what I have been saying, it is necessary that any proposition on which it is intended to appeal for funds to the modern business philanthropist must, from the ground up, be sound and workable. But it must also contain a trumpet call—a flash of scarlet, which will not only *point* men in the right direction but will *move* them.

Sometimes the warp of such a vision is woven through the woof of realities during long years of growing realization. Sometimes an outsider, with the proper background of wide and sound experience and a fresh point of view, can catch it almost spontaneously. Perhaps most often it is achieved by a combination of both methods.

But, however it is achieved, its light should first be turned inward, so that the institution itself becomes luminous.

The second step in fund raising is to begin to turn this inner light outward.

Lest I be thought suddenly to have plunged into mere metaphor, I want to quote to you a brief statement from an analytical treatise on fund raising which has received wide approval from eminent educators and philanthropists as well as fund-raising experts. This emphasizes that:

"In fund raising a specific objective is needed, an objective which can be stated in terms of well-defined public or human service and so can arouse the imagination, can command the interest, and can produce the action required in fund raising."

Of course, back of all this light and vision and step by step with it, there must be careful planning, adequate organization, sound technique; work and more work. Nine parts of perspiration must continue to go with every part of inspiration. But particularly in view of the emphasis I have been putting on the practical, the feet-on-the-ground side of fund raising and conditions precedent to fund raising, I should like to end on this higher note.

And I will only add to this one other note—one of high optimism. And that is this: It is my firm conviction that any educational institution which will meet the conditions precedent to fund raising as I have tried to outline them; which will put itself in a position—however long and painstaking the effort to do this may have to be—to *deserve* the support of careful investors in public service; any institution can thereby, I believe, *depend* on acquiring such an established philanthropic *credit rating* as will make the vast capital reservoirs of American philanthropy ever more and more available for the financing of as high a destiny as it can soundly envision.

MARSHALL OLDS,
New York City.

Tuition and the Student's Share of the Cost of Education

THE Messrs. Rockefeller, Senior and Junior, have given to education and allied purposes, including their foundations, a total of something above five hundred million dollars. When either of them speaks upon the financial support of education—as the younger Mr. Rockefeller did at a commencement luncheon at Brown University four years ago—he speaks with the weight of authority behind him, and the educational world is inclined to give him a hearing.

Speaking upon that occasion at his alma mater, Mr. Rockefeller, Jr., threw out the suggestion to the colleges and universities of the country that in looking for future financial support they should give serious consideration to what is the most direct means of improving the finances of any institution—raising the price to the customers. He granted, he said, the need of more and more funds for educational institutions, particularly for the payment of adequate salaries for the faculties.

"Today, therefore," to quote from the address, "colleges and universities are confronted with the necessity of securing either scores of additional millions for endowment or increased current income. That these vast sums can be secured from private sources in addition to all that has been given during the past ten years is hardly probable."

Whether Mr. Rockefeller was speaking for himself and the great educational boards which he and his father have founded need not be inquired into. At any rate, he was speaking as an observer, a student, and an authority.

"Where, then," he asked, "shall college and university fiscal officers look for the large added income that must be secured?" And he suggested, without going into details, that the answer to the question is increased tuition fees.

At about the same time a few of the institutions of higher learning heard that another well-known American philan-

thropist was willing to give the sum of one million dollars to the college or university which would charge its students the full cost of education, perhaps through the signing by the students of notes payable at various dates after their education had been completed. So far as I know, if this offer was actually made, it went begging. Indeed I know of none charging full cost. But in this respect I am like the little girl who wouldn't eat her spinach.

And yet I feel confident that the tuition trend in our colleges and universities, at least of those which are privately supported, is now and will continue to be in the direction indicated by these two patrons of education. We may not soon, or even ever, reach the point where the student pays the full cost of his education, including depreciation on buildings and equipment, but even for this statement I cannot be sure of my ground, in view of a rumor that one widely known institution in the country may soon raise its tuition to $1,000 a year, and that another is already charging that rate in medicine.

But this much we know—that in the ten years from 1907–08 to 1917–1918 the average tuition fee at twenty-one leading colleges and universities advanced only $32, from $125 to $157; that in the next five years the increase of the average tuition was $82, almost three times as much as for the previous ten-year period; and that in the next five years the increase was $90. Since Mr. Rockefeller spoke at Brown in June, 1927, the tuition fee at these institutions has on the average increased a further $33. In the past twenty-four years, the average tuition fee at these twenty-one representative colleges and universities has increased from $125 to $362, a gain of 190 per cent.

During this same period it is doubtful if prices in general have increased more than 50 or 75 per cent, at the most, so that it is clear that tuition fees have been advanced in the past quarter of a century from three to four times as rapidly as prices of commodities.

Of course it must be granted that, during this period, education has become more and more expensive for the

colleges and universities themselves, though it is my belief that tuition fees have been advanced more than in proportion to the increased cost of education. The trend in the cost of operating institutions of higher education is still upward, so that we cannot see the end of increased fees even if they are only to keep pace with the increasing cost of doing the job of education more effectively. Many of the large institutions of the country and not a few of the smaller ones have actively under way plans for giving their students more individual supervision and attention and for breaking up their numbers into smaller units. Other institutions will have to consider such plans if they are to compete with the best institutions in their fields. And all of this will, in some degree, increase costs.

It is interesting to see that the farther up the scale of education one goes, the higher is the per capita cost. In the public school system in Philadelphia, the average cost of educating a student in the elementary schools is $77.28; in the junior high schools, the cost is $113.15; in the senior high schools, $176.36; and in the normal schools, $283.40. In our two most important undergraduate schools at the University of Pennsylvania, the Wharton School and the College, the per capita costs are $368.08 and $512.38 respectively; and in medicine, which is a typical example of graduate and professional education, the cost of educating a student is more than $1,000 a year.

I know I am not adhering strictly to my subject of telling you what part of the cost of his education the student should pay. But before anyone can approach that subject, it seems to me it is important to recognize some of the factors that complicate the matter of estimating higher educational costs. I have shown how costs vary from school to school. For a four-year course these differences are considerable. For example, it costs the University of Pennsylvania $1,412.52 to educate a student to a degree of B.S. in Economics; if it is a B.S. degree in Architecture that the student is studying for, his four-year course costs the uni-

versity $2,694.74; while a B.S. in Mechanical Engineering costs the university more than $6,000.

Suppose the University of Pennsylvania were to charge to each student the actual cost of his education rather than the flat rate of $400 which obtains in all of the schools outside the field of medicine. In the college we should have to charge $512, in architecture $554, in veterinary medicine $783, in medicine $1,031, and in most of the engineering work well over $1,000. Even then we should not be charging the full cost, for these figures do not take into account depreciation of plant, interest on investment, and certain other factors.

It is clear from these figures that the University of Pennsylvania does not charge the student anything like the true cost of his education, although the figure is above the average for the group cited and among the highest charged. What the actual percentage is that the student pays depends on what costs are considered to be educational costs. Should research be considered an educational cost? Should the operation of a museum?

The total budget for all activities of the university in a year is about $8,000,000. The income from tuition fees totals about $2,750,000 and dormitory and departmental income about $1,000,000, or less than half the cost of operating the university. But not all of the remaining half could, by the widest stretch of the imagination, ever be charged to the students, since included in that part are many activities from which the student derives little or no direct benefit. Roughly, it is probably true that above $4,000,000 of our budget of $8,000,000 is the cost of education in the strictest sense, and on this basis the student pays between half and three-quarters of the cost. Without going into the figures for other institutions in detail, I understand that in general their experience is that the student pays half the cost of his education, which is virtually equivalent to his paying the salaries of the faculty. At the University of Pennsylvania for the first time this year tuition fee receipts fall below

professional salaries. The other half is borne by other sources of income and by society, both of this generation and of past generations. The question at issue, I take it, is how much of this other half may the student be asked to pay.

Theoretically, increasing the rate of tuition still further would constitute a very attractive source of income. If we were to increase our present rate by only one quarter, we should—if enrollment stayed the same—increase our income by $700,000 a year, which is equivalent, on a capital basis, to increasing our endowment by $14,000,000. But solution of the problem of increased income is not so simple as that, and boards of trustees must give very serious consideration to the problem before establishing increases of even lesser amounts, for such a sharp increase in a single year would turn away many worthy students and would undoubtedly decrease enrollment.

In considering increases of tuition, one is immediately brought face to face with the widening difference between the charges for instruction in the privately endowed and in the state institutions. How far can privately endowed institutions increase fees if state institutions offer virtually equivalent instruction at a nominal charge? This question affects the status in all but the New England and a few Atlantic seaboard states. The state institutions, with a millage tax which yields a revenue equivalent to the interest on an endowment of $100,000,000 to $200,000,000, are in a position to compete on very favorable terms with even the best privately endowed institutions. Harvard, which is the most heavily endowed, has about $100,000,000 of endowment, but the five-million dollar income provided by this huge endowment is not more than some states provide for their universities through taxation. Moreover, many of the state institutions are themselves beginning to accumulate endowments through bequests and gifts.

It is reasonable to suppose that the quality of instruction in the state institutions will continue to improve, due to these constantly increasing resources. A number of years ago

Dean Chittenden of the Sheffield Scientific School, at Yale University, in speaking to the Yale alumni in Philadelphia, described his experiences on a visit to the principal state institutions of the Middle West. He said that as a result of his studies in these institutions, noting the enormously increasing revenue available to them, he doubted whether privately endowed institutions could compete with the state institutions on equal terms for many years longer. He said that Yale alumni might well consider the prospect at some future date of seeing Yale become the State University of Connecticut. With the expanding facilities of the state universities, it is a question what the saturation point would be beyond which an increase in tuition fees would imperil the financial stability of the privately supported institutions.

If education were organized as a commercial enterprise, there would be figured into the cost the interest on the investment, taxes, a depreciation charge for buildings and contents, the operating costs, and a reasonable margin for profits and surplus. The resultant figure would, it seems to me, be a prohibitive one. On the other hand, interest on endowments earmarked for the education of students and other funds similarly applied must be credited before the charge is made to the student. It is the practice at the present time, in considering the cost of instruction per capita, to omit interest on the investment, depreciation, and other items, and to make the charge only on the basis of actual operating costs of the institution.

In trying to arrive at a true cost for instruction of the student body, one is immediately faced also with the difficulty of segregating the total university costs as among instruction, research, and public service. With respect to research particularly, it is hard to determine what cost may be properly applied to instruction, since only a small part of the research carried on by the institution, either through private initiative of individual teachers or through departmental activity, is definitely assigned and budgeted. It is hardly fair to charge the entire research cost against instruc-

tion for the current year when the students of that year derive little benefit from the results of research then being carried on.

The expense of research, especially in the medical, biological, and physical sciences, is constantly growing. A method should be developed for evaluating the cost of such research so that it may properly be charged its fair share of university expenditure, and instruction relieved of that part of the burden.

In considering an increase of tuition fees, one must also consider the whole problem from the point of view of the parent of the boy or girl coming to college. For them the tuition fee is but one of the costs. The total cost of a student's education in any one year is perhaps three times what he pays for tuition; that cost has increased 50 per cent in a dozen years and has nearly doubled in twenty-five years. It is estimated that the least amount for which a student may comfortably come to the University of Pennsylvania in a year is $1,200. A college or university in a country location or even in a suburban location is undoubtedly less expensive for the student than is the college or university in a city, and the country college might presumably charge a higher rate of tuition than the city institution and still have the total cost show a margin below the total cost in the city institution. At any rate, when it costs a father $5,000 for the college education of each son and daughter, the point has been reached when it is at least worth questioning whether major increases would not make higher education prohibitive for many of the youths whom we now welcome to our institutions.

I have shown some of the difficulties of figuring actual costs of education in universities which cover so much ground that is not directly educational work with enrolled students. And I have shown how difficult it would be either to arrive at a flat rate to cover alike the cost of the student in Sanskrit and the student taking just the regulation course of a school of business, or a uniform rate to apply to the urban, the

suburban, and the country college. I have not attempted to answer the question as to how far we may go in making all students, or at least undergraduate students, pay the full cost of their education.

I doubt if anyone can answer that question. But at the same time it is my firm conviction that the top has not been reached in the increase of tuition fees. For a number of years the privately owned colleges and universities of the country will undoubtedly continue to increase their fees, in an attempt to charge something more nearly the value of higher education as given in most of the good institutions and at the same time to test the earnestness of many of the youths who are coming to the colleges and universities now, in considerable degree, for social and business reasons.

At the same time, we shall always have to see to it that boys of brains and ambition but of slender patrimony will not be barred on the ground of cost. We shall in all probability have to take part of the sums which the sons of the rich pay and some of the income from endowment to provide many more scholarships than at the present time for those boys and girls whom a slight margin of increased cost would keep out of our institutions of learning.

A few years ago Stevens Institute of Technology announced the plan of charging the students the full cost of their education and then paying back as a bonus or reward certain amounts to the students as earnings, depending upon their individual accomplishments and their need. In the words of the president, it was suggested "that *net* college tuition fees should be on a sliding scale, more of the endowment income being invested in the more promising students, and less in the less promising." In other words, the boy who is habitually wearing out the dean's rug and the nerves and patience of his instructors would have to pay for the special attention he required.

This is the kind of thing that a small or moderate-sized institution can do, where each student is known in a personal way and his financial circumstances may be investigated with some accuracy. It is the kind of thing a physician or surgeon

attempts to do with his patients. The wealthy patient may pay $1,000 for his operation, while the impecunious patient may get just as good service, save for some of the luxury, without charge. But our larger educational institutions could not be sure of themselves in setting up sliding scales until we have gone further in breaking up our units and in restoring personal contact than many of us have as yet succeeded in doing.

At the present time I do not see how we can say that tuition fees should, for example, be doubled. We shall have to feel our way, and that way will undoubtedly be upward. The laws of economics, and particularly that of supply and demand, will operate on college and university education as on all other commodities. And it will undoubtedly come about that a top will be reached beyond which the institutions cannot go without losing enrollment, cutting down receipts, and thus defeating the purpose of increasing income. At that point tuition increases will have to stop. If certain institutions then cannot stand the competition for quality which the better endowed and the state universities set as the pace, they will be required either to accept positions as second rate institutions or close their doors.

Since the beginning of higher education in America, when John Harvard made his first gift to a college, there has of necessity been a dependence upon the gifts and contributions of society in the interest of education. It is part of the heritage of our country, and of the finest traditions of our endowed colleges and universities. We may be sure that if the day ever comes when the student pays a dollar in cash for every dollar received in educational value, the character of educational institutions and the attitude of alumni and the public toward them will be profoundly altered. A college or university may conceivably better its financial position appreciably, at the expense of seriously disturbing the spiritual relations which bind alumni to their alma maters.

The gifts of thousands of alumni to their colleges and universities in recent years provide ample proof that many graduates and former students are aware of the obligation

that they incurred over and above the fees paid for tuition while they were students. If education is to continue to meet a part of its expenses from the gifts of alumni, it seems advisable that an institution should not leave it to chance alone that they learn what portion of the cost of education is not met by the tuition fees. In numerous ways, in the catalog of the university, in convocations and in the relations of the administrative officers with the students, there are opportunities to make clear that the students are the beneficiaries of those who have believed in education and who have backed their beliefs with generous gifts of money. By such a means it may be that we can maintain a balance in the theory that education is an inherent right of youth and at the same time a privilege which must be shared in the future when the obligation can be discharged.

We may reach the point where only the most heavily endowed universities and the state universities can survive, but it is my hope that society will continue to give to the cause of education and research for many years to come so that the colleges and universities may continue to provide for students a better education than most of them could pay for. Rather than raise the rate to the last dollar which can be extracted from the student, I think our job is to give our students the best possible education, a sense of their responsibility to society, and such a sense of gratitude for what they have been given at less than cost, that they will constitute as alumni a large source of support for our institutions, either through annual gifts for current expenses or capital gifts of endowment.

GEORGE A. BRAKELEY,
The University of Pennsylvania.

The Contribution of Boards and Foundations

I WAS reminded rather forcibly yesterday afternoon of the modernity of the whole Foundation movement because, with two sermons to preach on Sunday and an address on race relations to give this morning, I thought that with my general knowledge of Foundations from a good deal of experience, I could rely, for detailed historical facts and figures, very largely upon encyclopedias. I was sadly disappointed.

I picked up, in the first place, my edition of the Encyclopedia Britannica, published in 1911, and I found that there was no reference of any kind under the word "Foundation" in the large index.

I then turned to Monroe's Encyclopedia of Education, published in 1915, and I found, equally to my surprise, that there was no article there on Foundations. There were individual entries under two or three, notably, the Rockefeller, the Carnegie, and the Peabody Foundations. All of that made me realize how very modern the Foundation movement is, as far as any large and general influence is concerned.

DEFINITION

The same thing came home to me rather forcibly when I looked for a definition of the word "Foundation." I looked in the Century Dictionary; there was nothing there. Of course, they referred to foundations as the old colleges of Oxford and Cambridge, but nothing in our sense of the word Foundation as a great educational or philanthropic board.

I then looked at my Webster's, which is a 1909 edition, with 1927 supplement, and I equally found no reference there. So, being accustomed to having a text, I thought I would look in the little book which I remembered Mr. Keppel had written a year ago, called "Foundations," and I found there this definition of the word, and I think it is a pretty good one: "As generally understood, a Foundation

is a fund established for a purpose deemed charitable in law, administered under the direction of trustees, customarily operating under state or federal charter and enjoying privileges with respect to taxation and continuity of existence not accorded to non-charitable trust funds." I have no doubt Mr. Keppel took legal advice with reference to that definition, and it seems to me a good and workable one.

SIGNIFICANCE—QUALITATIVE

Now, let me at the outset remind you that the contribution of Foundations to education and science is qualitative rather than quantitative. If the figures which Mr. Olds gave are correct, and they seem to me to be substantially so, then about $2,500,000,000 is given to philanthropy in this country every year. I have the statistics for 1927, and they were $2,100,000,000, so I presume there has been that increase in the meantime. It is interesting to note that probably only about one fortieth, speaking very roughly, of all the gifts for philanthropic purposes in this country a year come from our Foundations and Endowed Boards. Generally speaking, there are about 200 Foundations, and it is estimated that their total endowment is about one billion, one thousand million dollars, with an annual income of say fifty million dollars, and giving away perhaps ten or twenty million more from principal. I think it is very important to bear that thought in mind. The Foundation's influence financially is therefore largely in the quality of its work, not mainly on the quantity of its work. As far as its total gifts to education and to philanthropy are concerned, they are small in comparison with the voluntary gifts that come from other sources.

PURPOSE

What can we say as to the purpose of Foundations? There are many different purposes. Some are limited to a definite field, such as art or negro education; some are limited to a definite place, such as Cleveland or New York; some are limited to a region or a state, such as the Duke Foundation in North Carolina; others are unlimited as to purpose and unlimited as to field.

We owe to Mr. Frederick Gates, for many years the head of the General Education Board, what I believe to be the broadest definition of the purpose of a Foundation that has ever been given. In the Rockefeller Foundation the purpose as given in its charter is for "the well being of mankind throughout the world;" and that exact phraseology has been copied in a good many of the more recent Foundations.

Let me say, in passing, that when I read, about a year ago, Mr. Keppel's little book on Foundations, I wrote him a note of appreciation, and I told him that there was one lack in his series of lectures, and that was that he paid no tribute and made no reference to Mr. Gates. Mr. Gates was a Baptist minister who became Mr. John D. Rockefeller Senior's agent for benevolence, and it was under his inspiring leadership that the General Education Board, the Rockefeller Foundation, and some of the other Rockefeller organizations were established. Mr. Gates was one of the most remarkable men intellectually I have ever known. He had his prejudices and he had his limitations, but he was a man of extraordinary vision and extraordinary intellectual power, and he and Dr. Buttrick, a very different type, a kindly, fair-minded, sympathetic, quiet man, made a remarkable team.

ORGANIZATION

So, then, the purpose of these Foundations differs greatly. Now what can one say as to their organization? This also differs. Generally they have from nine to fifteen trustees. You will remember that President Eliot, in his book on the American University, says the correct number of trustees for a university is seven! Of course, seven was the number Harvard University had! I think in most every other place they have had more than seven, which reminds me that President Eliot, hearing that I had been at work for a good many years, and shall be at work for a good many years to come, on a history of universities from their origin to the present, wrote and asked me for the outline of my book, which I sent to him, showing that universities went back to the twelfth century and that I would start with them there.

He wrote a letter, which I still have, expressing absolute amazement that I began at the twelfth century. He said he did not think there was anything that was really worthy of being called a university until the first half of the seventeenth century! Of course he meant 1636. I tell that story on President Eliot, although he is one of the men in American education for whom I have the highest regard.

The trustees are sometimes self-perpetuating and sometimes chosen for life. Recently there has been an increasing tendency to have them chosen for terms of years, and on two or three Boards of which I am a member there is a provision that everyone must retire at sixty-five. A rather amusing case of that type occurred in connection with the Rockefeller Foundation about two years ago, when we accepted Mr. Hughes' resignation because of his reaching the age of sixty-five, and the next month he was appointed Chief Justice of the United States!

Most of these Boards have their set and regular meetings two or three or four times a year. Most of the trustees take their duties very seriously. The business is all presented by the directors or officers, and in most cases, presented most admirably. In the Boards with which I am most familiar the method of presentation involves presentations with recommendations on the part of the officers; presentations where the officers prefer to make no recommendations, but to leave things to the decision of the trustees; and a list of recommended declinations which any trustee may take up for further discussion should he wish.

HISTORY

Now let me say a word to you about the history of Foundations. The first thing that I know of that in any way approaches a broad Foundation, as we understand it, was the benefaction of James Smithson to the Smithsonian Institute in 1846 of $500,000 "for the increase and diffusion of knowledge among men."

Mr. Olds referred to the Peabody Board established in 1867. I am glad he did. I do not think that we have begun

: significance of that Board or its influence
ucation. It did yeoman's service in the
l foundations on which other Foundations
eir policies. J. L. M. Curry, of Alabama,
Dr. Wycliffe Rose, as directors of that
great work. It went out of existence, you
n 1914, handing over such assets as were
dy College for Teachers at Nashville. Its
1 public education in the South.

next few decades saw the most important
ıblished abroad—the Carlsberg in Copen-
l Fund, the Rhodes Scholarship Trust—we
go into them. Then came the really first
Foundation, as we understand it, the
on Board, in 1903. It had been prepared
ckefeller's agents in connection with his
ıropies, and by Mr. Carnegie. There fol-
sion a series—the Milbank, the Carnegie
sell Sage, Carnegie Corporation, the Rocke-
(in 1913), the Julius Rosenwald Fund, the
Laura Spelman (which had a most useful
years and then merged into the Rockefeller
inuing with very limited scope under the
nan Fund), the John Guggenheim Memorial
rs. We haven't time to go into the details
oundations.

CONTRIBUTIONS

ver, like to call your attention to some of
ributions of these Foundations, emphasiz-
ıe outset, the qualitative character of what
does, for I honestly believe that, speaking
most significant qualitative contribution to
ion and the advancement of science today
ade by our great Foundations. Take the
ation, for instance, and the Carnegie En-
ık I know of nothing in American education
enditure of $50,000 accomplished more than

Dr. Flexner's report on medical education. It was a most brilliant piece of work; it was worth tens of millions of dollars to the American people, both in cutting out fifty or so very poor institutions and in holding up higher ideals of medical education. The contribution of that particular book to medical education in this country was really epoch-making.

Or, take this very building in which we are meeting today. It represents a gift of $5,000,000 ten years ago from the Carnegie Corporation. Or take the work of the Corporation done in following up Mr. Carnegie's own private benevolence in the field of library construction. Such are representative creative works connected with that name. Or take the work of the General Education Board of which I know the most. Its work for agricultural extension in the South, now mainly taken over by the Federal Government and by the State Governments, was of extraordinary significance; or its work for public education in the South, both white and colored; or the work that it did after the World War in helping the colleges of this country readjust their salary scales to meet the higher costs of living. These are just examples of services of national significance rendered by that board.

Or take the work of the Rockefeller Foundation in improving public health conditions throughout the world, one of the most notable—some would say *the* most notable single example of constructive philanthropy in modern history.

Or take the work of the Rosenwald Fund. I was present at the fiftieth anniversary a couple of weeks ago of Tuskegee Institute, and we were told that the five thousandth Rosenwald school had been built. What an extraordinary achievement!

Or take the work of the Milbank Fund in rural health in New York State in its ten-year program. Or take some of the large work that the Laura Spelman Fund has done in the field of the social sciences; or the work of the International Education Board with its Fellowships, especially in the fundamental sciences, and its great gift to the new

200-inch telescope in California. I once heard Dr. Rose say at a meeting, when the names of various Fellows from all over the world were being read out, and we were told they could go absolutely any place they wanted to study biology or to study history or to study agriculture, or almost anything else they wanted, that he believed, after looking into the records of these men, that a majority of the greatest scientists of the next generation would be found among those fellowship holders in all countries of Europe and in this country.

Or take the work of the Russell Sage Foundation in providing for the regional survey of New York City, which must form the basis of the development of that city; or the work of the Commonwealth Fund in child guidance and mental hygiene.

These are just a few things, and not necessarily the greatest things. I could name another group of equally great things that these Foundations have done. Some of the smaller Foundations have also done very significant things. One small Foundation* made an educational survey of Native education in Africa, which largely influenced the British Colonial Office's new policy in education there. Another, the Harmon Foundation, has done a great work in providing small playgrounds, and in rewarding Negroes of real merit and distinction. So I think it fair to say that the various Foundations have rendered a very notable contribution to American education and to research.

PRINCIPLES

Now, what are some of the accepted principles of these Foundations? Of course they differ a good deal in their major interests. A very interesting study of that was made a couple of years ago. Of the 108 leading Foundations, 48 went in for individual aid; 36 for education; 33 for scientific research; 26 for child welfare; 22 for health; 18 for social welfare, and so on. The overwhelming majority, you will see, were working in the general fields of science and educa-

* This was the Phelps-Stokes Fund—Ed.

tion. But what are some of the accepted principles which run through all of them? Well, they all believe in publicity, and all publish reports; and they all believe in making use of well recognized agencies where they can, instead of establishing new agencies. Take the work that some of the Rockefeller Boards have done through the Library of Congress, which is extraordinarily significant, or the work that they have done through the Council of Learned Societies—how they use that great agency and this National Research Council in the awarding of scholarships, and in other ways. They try to find competent agencies and to make use of agencies, rather than to create new ones, with one or two exceptions.

Then, another accepted principle, not quite so generally accepted today as ten years ago, is that of the conditional gift, giving on condition that other funds are raised so as to stimulate gifts. That works particularly well in the case of colleges.

No one Foundation likes to give gifts that are apt to recur frequently, that are annual over a long period. They all have a time limit. I have never known a gift made by any Foundation that had over a ten year period; most have five or three, on a decreasing scale so as to help the institution to take care of itself.

Then, they practically all specialize in some field. They all go in for most thorough investigation before making grants. There is a tendency on the part of most of them to work increasingly with public agencies. There is also a tendency, which is inevitable, to go in for a smaller number of grants and for larger degree of concentration.

I think at the average meeting of the General Education Board today probably awards are made to only about one-fifth the number of institutions that were remembered when I first went on that Board some twenty years ago. It is so much easier to keep in touch with the work of a few institutions or organizations and to try to make them worthy types than it is to help little by little raise the level of a large number of institutions by spreading your butter very thin.

METHODS

Now, what are some of the approved methods? Almost all of these Foundations go in for Fellowships. I can remember at one meeting of a Rockefeller group a few years ago when we were told of fifteen hundred fellowships that were awarded by various Rockefeller Boards all over the world that year.

Then they, almost all of them, believe in studies—studies such as the Commonwealth Fund has made in public education, and such as the Carnegie Fund made through Dr. Mann in engineering education.

They all believe in research. I know Mr. Keppel says the greatest contribution that any foundation ever made was that of the Carnegie Corporation, to a group of scholars, which resulted in Insulin.

Then, they believe in demonstrations—demonstrations such as the Lincoln School; demonstrations such as the work of agricultural extension in the South, in the hope that the demonstration will be so significant that the State or some other public agency will take over the work.

PROBLEMS

Now let me say just a word before I close as to some of the problems. The problems are very much like the problems of universities—the problem of leadership. I think on the whole the men who have been the presidents and directors of our Foundations have been an exceptionally broad and fair-minded group. They have made their mistakes, but as a whole, relatively few mistakes.

Then there is the problem of trustees—getting interested trustees who are broad, and yet who will be absolutely independent with reference to their judgments. No one should want a rubber stamp on a Board. I remember when connected with Yale, President Hadley used occasionally to be a little irritated at foolish questions or attitudes, as it seemed to him, among some of our trustees; and I used to say to him, "Mr. Hadley, let's encourage all the independence we possibly can. One independent man could have saved

the New York, New Haven Road at the time it went almost to bankruptcy, and when its stock went down from 250 to 10." You do not want any rubber stamps on Boards, and strong directors and presidents do not want them either. They welcome criticism and suggestion.

Then there is the problem of the dead hand, and I think most of the Boards are thoroughly awake to that. They have removed conditions in many cases on grants that were made originally with conditions; they have made increasingly effective the wise provision in some charters that the trustees may dispose of principal as well as income if in their judgment it seems advisable.

There is also the danger of getting into a rut. I think the provision that they have in connection with the biological station at Wood's Hole is one of the most broad-gauged I know of in that connection, where they provide for a scrutiny every ten years by an outside group, to see whether there are not ways in which the institution can render a larger service.

One of the most useful methods that I know of in this connection is the summer meeting of two or three days, such as the Rockefeller Boards have held every couple of years at some place in the country, to try to think out and through some of the major problems facing the world of science and American education.

Then, a problem that I have personally felt keenly, is the problem of getting Boards to interest themselves enough in the Humanities. It is so much easier to see the concrete results in the physical, mathematical and natural sciences, that it is sometimes hard to get them to give, as it seems to me, enough to the great field of Humanities. It is harder to find constructive opportunities that appeal to the imagination, but they can be found, such as some of the great gifts recently made by the General Education Board to the Oriental Institute of the University of Chicago.

Another problem I think is to see that public education is helped more. I have been disturbed at the relatively small amount of money that is going from the Foundations

to constructive work in the field of public education—especially towards the training of adequate leaders and high school teachers.

Well, my friends, I have tried to give a simple presentation of the history, and of some of the major problems and achievements of Foundations. I think that the average college meeting only a local need has relatively little to expect in the way of direct help from our larger Foundations to meet their running expenses. On the other hand, I think any institution, large or small, that is doing any creative and constructive work of specially large significance can approach the Foundations and be sure that they will receive an open-minded hearing.

ANSON PHELPS STOKES,
Washington, D. C.

The Educational Finance Inquiry

COPIES of the April number of *School Life* have been distributed to you. You will find in the first article a very brief discussion of this finance study by one of the members of our staff. May I announce at the outset the place of this study in the general program?

You will recall perhaps that in the reorganization of the Office of Education we are availing ourselves of part-time experts from the universities and other agencies. We also plan to secure full-time some of the younger students of education—some who have had the full training for the doctor's degree in standard universities who will come to Washington for service on one of these studies. Usually this service will last approximately three years and should furnish to American students something which they have lacked in the past, namely, a three-year post-doctoral period of preparation before entering upon actual teaching in the universities of this country.

I know that there will be only a small number of the whole number of men and women needed to staff faculties of education who can secure this preparation, but nevertheless I think that the eight young men who are now receiving this kind of preparation under Dr. Koos at Washington will go to eight institutions of learning in this country much better prepared to teach secondary education than persons have heretofore entered upon such work.

We shall have added, then, three years of post-doctoral training under a very highly specialized man to the best preparation which it has been possible for these young men to get. That is part of the object in the peculiar organization of our survey undertakings. Another object is to prevent building up a large permanent staff in education at the national capital.

We are assuming that for the present, at least, the American people are serious in feeling that the federal function in education consists in the gathering of data, their evaluation and dissemination. That means that we must not build a

large staff which, having finished one job, will be looking around for another one.

It seems to me that we ought to go to the Congress from time to time, with a request from the proper authorities in education, asking for a study of a particular aspect of the subject, and that when that project has been completed and results published, the office itself is through. As the chairman of the Council has just said, outside agencies should do whatever promoting or whatever agitation seems to be demanded by the facts as they have been discovered by the federal office.

I think also that the federal office is better off in its work without any authority. Acting on that assumption we have succeeded, during the past few months (since the last meeting of this Council, at any rate), in relieving the Commissioner of Education of all administrative authority whatever. He no longer exercises any control over the schools for the natives of Alaska, nor does he exercise any control over the hospital and health service in Alaska. That has been transferred, with the permission of Congress, to the Commissioner of Indian Affairs. Accordingly, what we are now doing in Alaska is conducting a study, financed by the Carnegie Foundation, of the sociological and psychological resources of the native peoples.

This last year a study was made of the Eskimos in the western part of Alaska. Next year a study will be made of the Aleuts in the southwestern section of Alaska. The man who has been making those studies has been before the legislature of Alaska, has presented his plans in a general way, and we have in the office today an unsolicited resolution from the legislature of the Territory, expressing its approval of our procedure.

That divorces completely, as you notice, the fact-finding function from all administrative responsibility. The only weapon which the Office of Education retains is the same weapon which it uses in connection with local studies and surveys—that is, the weapon of publicity. The Commissioner never makes a survey in a city without a request of

the Board of Education approved by the state superintendent or state commissioner of that state, but he always retains in his contract with the local board of education the right to publish the findings in full, if within a reasonable time they have not been made available to the local public; and as some of you know, in the past whole city systems have been reorganized through such surveys, and situations unknown to the people, such as excessive costs of operating schools due to political graft, where the general maintenance staffs of the school system are adjuncts of the city political machine, have been corrected.

Such things have come to light and have been remedied simply because the Commissioner of Education has retained the right to publish findings. I believe that that is strictly American in principle and should be a chief function of the office.

In line with this policy, the first study undertaken on truly nationwide scope was in secondary education. In it this Council was somewhat active. Your chairman, as a member of the Committee of the North Central Association, was very active. That study is about to enter its third year and promises well.

The second study involving teacher education was begun a year ago at this time—that is, last July. The third study, concerned with school finance, grows out of, first, certain needs which the other two studies have brought to light; and second, increasing difficulties in financing education.

We found that it was impossible to make anywhere near a complete study of the secondary school situation with monies appropriated. We eliminated first of all consideration of private and parochial schools as institutions with which we were not immediately concerned and as institutions which had not requested our services. We also eliminated the history of secondary education, due to the fact that there are great gaps in it. We have for instance a fairly good series of accounts of the old Latin grammar school. But we have no adequate account of the academy. We have good monographs on the development of the high school in only a few

states. We have practically no accounts of the development of the parochial secondary schools in this country. So there are such great gaps in the history of American secondary education that we concluded it must be omitted, for the simple reason that to include it would have used up the entire appropriation for that one item.

We also decided to leave our financing (which was considered by the Board of Consultants a very important matter) on the ground that financing education cannot be separated into elementary, secondary, and higher levels. It must be considered as a unit.

The same issue came up in connection with the teacher education study. We concluded that the financing of that type of education was also something which could not be divorced from the general program of financing education. So the first reason, then, for a survey of school finance is that we have been omitting finance considerations from previous studies, with a view of studying financing as a unit. Our second reason is that financing schools has been growing in importance in the states.

About a year ago the National Education Association's Division of Research summarized the legislative issues reported from the states. They found that in 1929 and '30 school revenue and taxation constituted 86 per cent of the school items before the legislatures of various states. The National Education Association will be found in *School Life* when copies are distributed. I shall not take time to read it here in detail, because figures are not easily kept in mind.

The demand for the survey was formulated by a committee representing the National Council of State Superintendents and Commissioners of Education. That body appointed a committee at its December, 1929, meeting, which reported at its next February meeting, requesting survey be begun in July of this year. That resolution, incidentally, was unanimously passed by the Department of Superintendence at its February, 1930, meeting.

May I say in this connection that none of the surveys now underway were considered by the Commission until they had

been formally requested, by the National Council of State Superintendents and Commissioners of Education. In brief, we expect that the proper administrative offices of education in this country will make the decision as to what should be done next in surveys. To date they have approved this particular program.

May I call your attention to another table which appears on the first page of *School Life*, which shows the approximate cost of these studies when spread out over a period of years as we have them. In the year 1929 and '30 we had $50,000 appropriated for secondary education; in the year 1930-31 (the current year) we have $100,000 for the study of secondary education and $50,000 for the study of teacher training, or a total of $150,000. In the year 1931-32 (which is the fiscal year about to open) $75,000 is appropriated for secondary education (which is to close that study): and $50,000 for school finance (to begin that study) or a total of $275,000. For the year 1932-33 (which will be passed on by the Congress assembling in December) $70,000 has been already authorized in a general way for the third year of the teacher education; and $100,000 for the second year of the school finance. As a result of the request of the National Council of State Superintendents we shall ask in December for authorization to undertake a study of special education.

By special education we mean education of those deviates mentally, physically, and socially from the normal standards. We have not yet estimated the amount that such study will cost, but we have discovered from finance studies that $50,000 is about the sum we can expend wisely in the first year. For getting under way and selecting a staff takes time. The first year of the secondary survey we did not spend $50,000. We shall spend $50,000 in the first year of the teacher-education survey, since in the first year came a very big job—an individual check list to every teacher in the country, of which more than 400,000 have already been returned. This requires rather a large clerical staff. So it appears that we shall spend the entire $50,000 asked for.

But we have learned by experience that in the first year of one of these studies it is very difficult to expend $50,000 and expend it wisely. If this program proves by experience to be a sound program, we may never expend more than a total of $250,000 in any one year on studies of this kind. Incidently, now that copies of the April *School Life* are in your hands, please note the table to which I was referring on the bottom of the first page of the magazine. You see the letter X. If you will write "special education" (a study which has not yet been before Congress but which has been approved by the National Council of State Superintendents), you will have the program proposed. In the year column if you would add $50,000 under 1932-33 where there now appears a question mark and place $220,000 at the bottom of that column, you would have the total cost of the program.

The program for next year, then, if Congress approves it, will call for $220,000 which will be the largest expenditure in any one year to date for this particular purpose. It doesn't involve anything like the proposals made in Congress of a million dollars per year for research in education. I have about come to the conclusion that it would be impossible at the present time to expend a million dollars in research in education wisely since there are not enough available trained workers in education.

Probably we could do a good piece of work by wrecking the research divisions of every university in the country; that is one possibility. Another alternative would involve undertaking a number of questionable projects with poorly prepared people. Now, there are serious objections to wrecking the research work of the schools of education in the universities, even if they were willing to transfer it to the Federal Government (and some of them would resist, I am sure). As Dr. Judd pointed out at the Detroit meeting of the Department of Superintendence, educational research work falls into two major divisions (which I believe he termed fundamental and service). He suggested that the service research was the primary work of the federal office.

But I should like you to think of this fundamental, or what

somebody has called the "drill and blast" type of research, as being concerned with two matters of which the first concerns the administrative aspects of education, city and state, and collegiate. In this particular field the raw data should be gathered by the Federal Office of Education which has access to the records of all the States, and to all the institutions. In brief, we can get the basic data there for our own studies and for college studies. The chief difficulty in that field today is not lack of facilities but a lack of uniformity in reporting and in recording. For instance, a report on income from one institution of higher learning does not match up with the report on income from another. Two institutions may get sums of $250,000 to be spent for scholarships over a period of five years. The comptroller of one institution puts the whole $250,000 into income for that year, while in the other institution we found $50,000 entered as income for that year and the other $200,000 accounted for in some other report. Today when we have gathered these data together they are not worth what they should be due to lack of uniformity in definition and in reporting.

I believe that the Federal Office should undertake the leadership in attempting to straighten out difficulties of that type. During the past two years a committee representing comptrollers of different types of institutions has been at work on this very problem. The Comptroller of the University of Illinois, Mr. Morey, has been its chairman. And I am quite sure that by June or July this committee will hold its final meeting and make a report which will straighten out such differences as reporting income and plant maintenance which is one thing in an endowed institution and an entirely different thing in a public institution. When such differences will have been worked out our figures will be much more reliable. This is typical of work I believe that we can do through the cooperation of voluntary committees and associations which should make the statistics necessary for administration studies more accurate, and which will assist the institutions concerned in checking their own costs and evaluating their own practices.

But a second aspect of this so-called fundamental or "drill and blast" type of research is concerned with the educational process itself. In order to make headway there we must have students to be taught, and since we are divorcing ourselves from all schools and institutions it is not our plan to have any students under the direct management of the Federal Office of Education. Therefore, to wreck the research facilities of the schools of education would be to destroy educational progress entirely in this country. We must depend upon these schools of education to conduct inquiries into the learning process, to study the eye movements in reading, to discover the significance of left-handedness and to conduct thousands of researches with people if we are to make real progress in American education.

We regard then a Federal research staff and the research staffs in the colleges of education as complementary. One should not make any effort to encroach upon or destroy the other. If I have made that point clear, you will understand why we wish to use our facilities to build men to help these institutions out in the field, and why we do not desire a large sum of money for fundamental research at the National Capital which might damage in some way the man-power resources of the institutions. Therefore, for the next ten years I should keep this sum of money not in excess of $250,000 a year.

Inasmuch as this matter of cost has arisen may I remark parenthetically that we desire to keep our Washington staff free from bureaucratic tendencies. Therefore, we must keep it reasonably small. We need a staff large enough to gather the data, tabulate, edit and publish them; to make studies indicating trends; and to utilize what we gather in answering inquiries from the field and assisting local schools and institutions in improving their work. Such a staff this next year costs $280,000 in salary, $25,000 for general operation, and $62,000 for printing, or somewhere in the neighborhood of $350,000; and so far as I can see additions to the staff in the next ten years ought not to increase that budget by more than $50,000 or $60,000.

Presumably, then, it will not be necessary to ask more than $650,000 to $750,000 to maintain the present office of education at a state of efficiency sufficient to do the kind of research that it ought to do, and also to handle specialized types of research represented by these surveys. For these survey staffs we increase our force only temporarily. At the end of the three years these staffs are dismissed, the part-time men return full time to their own institutions, and the full-time younger men and women will find places in the institutions as teachers and research workers.

Such is the background in which a special survey staff finds itself—a temporary addition to a compact highly specialized bureau. Each survey staff however, has a typical administrative organization adapted to tie it into the established office and coordinate it with other special survey staffs. To this I give brief attention. For each of these surveys the Commissioner of Education acts as general director, with a view to coordinating one with the other. For example, the study of secondary education is keyed into the teacher education survey in so far as secondary school teachers are concerned. Both are coordinated with the survey of school finance, and every effort is made to prevent duplication of effort on the part of school people from whom data are secured. The director has a part-time associate director who is charged with organizing and directing a full-time staff of younger men and part-time established specialists and a research expert in the field to be studied.

For the secondary survey L. V. Koos was loaned by the University of Chicago to give us all his spare time. During this survey the Director of the Chicago School of Education does not throw any additional burdens on Dr. Koos and makes it possible for him to give almost undivided attention to this in the hours that he is not actually teaching in the university.

In the teacher education study, Dr. Evenden is allowed the similar privileges at Columbia University. In connection with the school finance study the Dean of Teachers College has been so considerate that not only have the administrative

responsibilities of Dr. Paul Mort been lightened but he has been given leave to sail this morning for Europe in order to get a good rest before beginning his duties at Washington on the first of July.

I cite these instances as indications of the spirit of cooperation existing between the universities and our own office where even such experts may be concerned.

Next we select a Board of Consultants. Our special directors sometimes think they ought to be called insultants, for their function is to criticize the program proposed, to find the holes in it, and to help determine the aspects which should receive emphasis. They represent all points of view. For the secondary survey there are nine on the board; for the teacher education study there are twelve. We have not yet made up the list for the school finance study, but organizations which will be represented are:

The State Superintendents
United States Chamber of Commerce
National Industrial Conference Board
Taxpayers' Associations
State Departments of Finance
Professors of Public Finance
Professors of School Finance
Professors of Government
Professors of School Administration
City Superintendents representing the Department of Superintendence.
The National Educational Research Division
The State Tax Commissions

In each of the other surveys there are also a professional advisory committee and a lay advisory committee. The professional advisory committee meets once a year with the Department of Superintendence. The lay advisory committee does not meet as a committee but receives reports from the staff committee and individuals send back their criticism.

In this finance study there will be two advisory committees, one representing the professional educational interests and the other representing the various fiscal interests. Neither one of those bodies has yet been appointed.

This survey, as you will notice, varies from the other two, in that it is to run four years. It may take longer to gather some of the basic data. With this in mind we have already sent out a check list to state superintendents and have secured a fair picture of the situation in the states. For instance, during the past ten years twenty-eight states at some time or other have had tax commissions at work, and at the present time there are thirty-one state tax commissions at work. State surveys of school finance were made: five before 1925, two in the year 1925, four in the year 1926, three in the year 1927, one in 1928, five in 1929, and five in 1930, and two surveys are now in progress, indicating much interest, and also that some material will be available with which to start on this particular study.

The State Superintendents and Commissioners of Education have checked lists indicating also that they are most interested in the sources of school funds in eleven states; in administrative units for the support and control of school funds in eleven states; for measures regarding the better equalization of school support in ten states; for schemes or programs for apportioning school funds in five states; for the extent to which the state government should participate in the support of education in four states; for particular measures of financing rural schools in two states; for methods of financing the secondary school system in one state; for better methods of cost accounting in one state; and for developing a theory of taxation and a proper theory of school support in one state. Doubtless that list is only partial, and when the State Superintendents are together discussing these matters they will discover that more of them are interested in more of these questions. But this gives you an idea, I think, of the nature of the problems involved in this particular study and why it has such importance at this particular time.

WILLIAM JOHN COOPER,
United States Office of Education.

The Proposed 1932 College Testing Program of the Cooperative Test Service

Under the auspices of the American Council on Education

THE Advisory Committee on College Testing wishes to enlist the interest of college authorities and faculties in an experimental program for nation-wide cooperation in the use of comparable achievement tests in colleges.

In comparatively recent years two new types of examinations have come into use in colleges of this country. Beginning about 1915 the type commonly known as intelligence tests came to be applied at entrance as a help in guidance or as a criterion for entrance (college aptitude tests). Since 1920 the objective type of subject test or course examination has rapidly come into wide use. Among the advantages claimed for the new type examination, two are most generally recognized. First, the large number of items makes it possible to cover in one examination a wide range of information or a broad sampling of the content of a course. Second, the exactness of the answers makes it possible to score the examination objectively, and so to avoid the errors of subjective judgment. Those who have observed the different values assigned to the same paper of the essay type by two or more competent teachers have almost invariably been attracted by this feature of objective tests.

Objective examinations are difficult to construct properly and are open to serious objections when not handled with sufficient care and intelligence. They are likely to be merely fact-finding and may fail to seek out the power of the student to think or to utilize what he has learned. Indeed, the individual questions may be so faulty in form that their meaning is not clear and they therefore fail to measure even the factual knowledge which the student possesses. However, these are not necessary limitations and in the hands of experienced, ingenious and painstaking persons objective tests can be made to measure not only the memory of factual

knowledge but also the power of reasoning about the facts or of making use of the facts in solving problems or in constructive work. Even when they measure primarily information they furnish important data, since effective thinking is partly dependent upon the facts which are at the ready command of the thinker. Teachers and administrators will realize clearly that no single test can tell the whole story concerning an individual, and should exercise judicious care in using all available sources of information, including subjective examinations and personal judgment. That much useful data can be furnished by objective tests has already been demonstrated by the experience of many high schools and colleges. No claim is made that they are an adequate measure of all the outcomes of good instruction.

More recently objective tests have been used to measure the student's knowledge in fields broader than the content of a single course, or to estimate what the student has accomplished at a certain stage in his college career, and so on. These go by the general name of achievement tests.

In the State of Pennsylvania, with the support of the Carnegie Foundation for the Advancement of Teaching, achievement tests are being used in a state-wide cooperative program in both high schools and colleges. This program has been under way for three years and will be continued until one class of students has passed through high scholo and college. The results of the tests thus far given in forty-nine colleges in Pennsylvania are of great interest. Great differences have been found between student groups in different colleges, and between individual students in the same college, in regard both to tested intelligence and tested achievement in all subject matters included in the examination program. Certain advantages appear from a cooperative program in numerous colleges. The difficulties and limitations above referred to can be considerably reduced through the cooperation of persons who are expert in the construction of tests. The results are sent to all colleges, but the identity of each college is kept strictly confidential by those who do the scoring and reporting. Each college can then

see how its students, as a group, compare in achievement with those of other colleges, and, still more important, how they compare with one another individually. The comparisons need to be made with great care, in the light of all relevant factors. The main purpose of the tests is to throw light on the capacities, needs and problems of individuals rather than to furnish a basis for institutional comparisons. The results of the testing program here suggested may, when announced, throw light on the selection of students and the conditions affecting the selection; on the response of students to the formal and informal facilities for cultivation offered by the college; on the relative effectiveness of instruction in departments; on the importance of various factors influencing student performance: age, home and social conditions, previous school training, scholastic and vocational aims, extra-curricular interests, faculty counsel, etc.

However, tests which furnish comparable data on students from different colleges are capable of many constructive uses. Giving the same tests in many institutions helps to promote intellectual interests among the students. They find here an intercollegiate and interclass competition of a new sort, an intellectual competition. Tests in the construction and administration of which many colleges have cooperated are superior in general interest and validity to those prepared in one institution for its own situation. On the results of such tests colleges may feel greater certainty in giving to individual students who are outstanding more rapid advancement than their fellows, or recognition may be given for work which they have done by themselves outside of class.

The results of the tests given in the Pennsylvania colleges warrant the expectation that colleges generally could profit from a similar program. The use of such tests would yield much information which the colleges would find useful in developing and improving their educational procedures. Therefore this committee desires to see an experimental cooperative testing program inaugurated by the largest possible number of colleges throughout the country in 1932.

For this purpose the committee has selected the test used for sophomores in the Pennsylvania study. It is a very fortunate circumstance that so extensive a test, carefully prepared and already proven by use in a large number of colleges, is donated by the Carnegie Foundation to the Co-operative Test Service for the purpose of this nation-wide program in colleges. This test is recommended to the colleges not as a fully perfected instrument but only as the product of a great deal of careful planning, study and construction which has already been widely used. The experience of the Pennsylvania testing and the norms and records resulting will all be available for the use of the colleges in interpreting the data from their own students.

The complete test prepared for sophomores in Pennsylvania colleges is long and required twelve hours. Many colleges may find this too long a time to devote to a special testing program. However, very interesting and valuable results may be obtained from the use of sections of the test. As a minimum program for the present purpose the committee recommends the sections on Intelligence, General Culture, General Science, and English. These sections require two periods, one of three hours and one of three and one-half hours. These are the sections of the test which have rendered results of the most general interest to the colleges using them. To these sections teachers colleges may add the professional educational test.

For colleges which wish to undertake a more extensive program the committee recommends that they give to the other three college classes the sections recommended above as the minimum program for sophomores. In the Pennsylvania testing the most stimulating results obtained have been the interclass comparisons within colleges. The administration of the same tests to additional classes would require comparatively little additional effort in the college, and the opportunity to study the advances made from class to class within the college will be one of the most interesting and important outcomes of the testing program.

The interpretation of the data and any conclusions affect-

ing college policies will rest with the colleges themselves. The data derived from any large testing program inevitably raise questions regarding most of the conditions and influences which may contribute to the development of the student through his college years. Such data, interpreted in the light of all the facts and with the insight of those most intimately concerned and of those most widely experienced, can scarcely fail to furnish the colleges with important evidence as to the most promising policies to be pursued.

Following the study of the results of these tests, each college will be in a position to consider whether worth-while helps in its work can probably be secured from: (*a*) repeating the same tests in successive years, (*b*) using the new comparable tests now being prepared by the Cooperative Test Service under the auspices of the American Council on Education, or (*c*) using other tests or examinations of other types. It is expected that some of the new comparable tests will be ready for preliminary use during the academic year 1932–33. The greatest interest of the committee in the proposed experiment is to demonstrate whether such a widespread cooperation among colleges is feasible and whether the individual colleges secure information of such value that they will wish to continue some similar program.

It is possible further to look forward to a permanent testing program linked up in a constructive way with a permanent testing program in high schools. There has long been evident a need for cooperation between secondary schools and colleges in the selection and guidance of those students who should go on to college, and for a differentiation in curriculum for college preparation and vocational training. An admirable statement regarding such a cooperative program, made by the presidents of Pennsylvania colleges, has been distributed by the Department of Public Instruction at Harrisburg.

All tests will be scored under the direction of this committee, detailed arrangements to be announced later. Promptly, when the scoring is completed, each college will be given the scores of its own students and also the results

for all other colleges, but the names of those colleges will be withheld. The cost of the testing to the colleges cannot be given exactly at this time, but it is estimated at 80 or 90 cents for each student taking the limited test of six and a half hours. This includes the tests themselves and the scoring and reporting.

The special commiteee of the North Central Association for the revision of the standards of the Association joins with this commiteee in recommending the use of these tests by the colleges in the territory of the North Central Association and has requested this committee to give them access to the results, to be studied by the committee of revision alone and not for the Association as an accrediting agency. This committee therefore requests each college in North Central Association territory at the time that it agrees to participate, to state *whether it gives or withholds its permission to have the results of its tests placed in the hands of the above mentioned committee of that Association.* The Advisory Committee on College Testing will not allow any person or agency to have access to the test records of any participating institution without the written authorization of such institution.

Summarized, the proposal is as follows:

1. All colleges, teachers colleges and junior colleges throughout the country are invited to participate in a cooperative testing program in 1932.
2. The tests will be given to sophomores simultaneously, the date suggested being May 3–4, 1932.
3. It is recommended that each college use the same minimum selection from the tests given to sophomores in the Pennsylvania Study. The same tests may be given to other classes in any college desiring to do so.
4. All tests will be scored centrally under the direction of the Advisory Committee and reports given to each college on the scores of its own students. The results of the test will be kept strictly confidential between each college and the committee.
5. Each college will pay the necessary cost per student for printing the tests, scoring and reporting.
6. This committee will offer its services for the consideration of proposals for the extension of cooperative testing in future years.

Additional information and comments on the work of the Cooperative Test Service and the Pennsylvania Study will be found in the following articles:

H. E. Hawkes, The Cooperative Test Service, in the EDUCATIONAL RECORD for January, 1931.

Max McConn, The Carnegie Foundation's Study of Secondary and Higher Education in Pennsylvania, in the Bulletin of the American Association of Collegiate Registrars, vol. 5, No. 2.

Max McConn, The Cooperative Test Service, in the *Journal of Higher Education*, May, 1931.

A statement from the College Presidents Association of Pennsylvania, Department of Public Instruction, Harrisburg.

A report on the results of the college test in the Pennsylvania Study is in preparation and will soon be issued by the Carnegie Foundation for the Advancement of Teaching.

The date suggested for the testing is on the afternoons of May 3–4, 1932. Each college is asked to say whether this date is satisfactory and to indicate whether April 19–20, April 26–27 or May 10–11 would be preferred.

The colleges are requested to inform the chairman of the committee as early as may be if they will participate in this program.

The Advisory Committee on College Testing
G. W. Frasier,
V. A. C. Henmon,
C. M. McConn,
F. L. McVey,
L. M. Terman,
C. S. Yoakum,
G. A. Works,
G. F. Zook,
J. B. Johnston,
Chairman, University of Minnesota.

NOTE

The several actions from 1923 on which have led up to the inauguration of the proposed program are reviewed in an article entitled "The Cooperative Test Service" by Dean H. E. Hawkes in the EDUCATIONAL RECORD for January, 1931.

The origin of this Committee, its instructions and its recommendations to the Central Committee are given here.

At the meeting of the Central Committee of the Committee on Personnel Methods of the American Council on Education held at Indianapolis on January 31, 1931, "on motion *it was voted* that an advisory committee be appointed to advise the Central Committee regarding the college testing program of the Cooperative Test Service. That the Committee be requested to study the sophomore examination and to advise the Central Committee regarding the use of this examination in a wider area. The chair appointed the following members of the Committee:

Dean J. B. Johnston, University of Minnesota.
Professor V. A. C. Henmon, University of Wisconsin.
Vice-President C. S. Yoakum, University of Michigan.
Dean C. M. McConn, Lehigh University.
President F. L. McVey, University of Kentucky.
Professor L. M. Terman, Stanford University.
President George F. Zook, University of Akron.

This Committee at its first meeting voted the recommendations contained in the following letter:

To the Central Committee of the
Committee on Personnel Methods,
Dean H. E. Hawkes, Chairman.

Dear Sir:

The Advisory Committee on College Testing held its first meeting at Detroit on February 22. A copy of the full minutes of this meeting will be sent you after they have received the approval of the members.

The following recommendations voted by the committee are reported to you now in order that the question of support for the committee's work may be taken up without delay:

1. That the Cooperative Test Service be asked to con-

duct a nation-wide testing program in May, 1932, using the English, Intelligence, and General Culture sections of the Pennsylvania Sophomore Test as a minimal program, but giving individual colleges the option of using additional parts of the test.

2. That this committee with the assistance of Dr. Ben D. Wood undertake the work of getting the colleges of the country to participate through contacts with regional associations, state associations, and through articles in educational journals and personal visits of members of the committee and of its representatives. The committee is also willing to formulate rules and conditions for participation and to arrange for centralized scoring, collating, and writing up the results.

3. That the committee is ready to go ahead with this project as soon as the Central Committee approves these recommendations and gives assurance that approximately $15,000 will be available for this purpose.

4. That the committee believes new members should be added to it, representing other parts of the country, as soon as men who are likely to be helpful are discovered in each region.

The names of persons to be added to the committee will be forwarded to you as they are agreed to by the present members.

Sincerely yours,
J. B. JOHNSTON, *Chairman,*
Advisory Committee on College Testing.

Dean J. B. Johnston,
University of Minnesota,
Minneapolis, Minn.

My dear Dean Johnston:

This letter will confirm my wire of yesterday which gave approval to all four of the proposals of the Advisory Committee on the College Testing Service as contained in your letter of March 10.

I would also like to authorize the addition of Dr. G. A. Works and President George W. Frasier to your committee in accordance with your wire of March 17.

Very truly yours,
H. E. HAWKES.

The National Committee on Education by Radio

I SHALL speak informally and very briefly, not so much on education by radio as on the National Committee on Education by Radio. The word "advisory" should not be in the name of this committee. Radio is here, and whether educators wish it or not, it is certain to affect profoundly the institutions and practices in the general education of adults.

I was impressed greatly with the paper which your chairman presented at the beginning of this session. I was impressed especially by his reference to the importance of planning in advance rather than everlastingly spending so much energy in doing over things and unscrambling things that might have done right in the first place with a reasonable amount of planning.

I think there has not been in the entire history of America a better example of what a lack of intelligent planning can do than in the development of radio in contrast with its development as an educational tool in the other civilized countries of the world. Educators somehow seem to have ignored the possibilities of this great new tool for reaching the human mind until it has gotten into a situation so complicated and confused that it will take a decade to get where we should be at the present moment.

That situation began to be apparent early in 1929, and Secretary Wilbur appointed at that time the Advisory Committee on Education by Radio, of which Commissioner Cooper served as chairman. That committee, after some study and gathering of data, published its report, which is now available. As a result of its work there will be in the United States Office of Education a specialist in education by radio who will gather facts.

During the summer of 1930 it became apparent that the situation in the institutions which have radio broadcasting stations was becoming very serious. Within seven months,

due, we think, to a seriously mistaken policy of the Federal Radio Commission, twenty-three of these stations were crowded off the air. The continuation of that policy would have meant, within a relatively short time, a total abolition of independent educational stations and a further accentuation of the monopoly network broadcasting system that has had such a rapid development.

In the meantime, advertising, much of it very doubtful, was crowding out the cultural elements in our radio program and giving a sameness to the programs over different stations, so it was practically impossible to have a reasonable choice, as you might have in other countries of the world.

As a result, there gathered in Chicago, in the fall of 1930, representatives of these suffering stations and of educational associations. It is out of that conference and its conclusions that the National Committee on Education by Radio grew. It includes people who are associated with nine great national organizations—the National Council of State Superintendents, the National Association of State University Presidents, the Association of College and University Broadcasting Stations, National University Extension Association, National Catholic Educational Association, the American Council on Education, the Association of Land Grant Colleges and Universities, and the National Education Association.

The committee has been meeting from month to month to study the elements of this great question. It has mapped out a program to continue at least through the year 1935. It has sought from the Payne Fund and has obtained a grant of $200,000 with which to finance that program, a generous grant, and yet a grant pitifully small when one considers the magnitude of the problems that have to be dealt with.

It has set up two offices which have been in operation for some months. One is an office in the Press Building, near the Radio Commission, to serve the educational stations as they are drawn in from day to day, to defend their rights before the Federal Radio Commission; another is in the National Education Association Building, which will serve

as a general center of publication, conference, and research.

The committee has issued a weekly bulletin in which it has gathered together the most easily available data, pending the time when its research program could begin turning up more fundamental data. I suppose in the few months in which it has been in operation it has published more actual facts concerning education by radio than have been brought together in any one center in this country in the entire development of radio, and that body of facts will continue to pour forth into the hands of people who need them to determine policies. If there is anyone here who isn't receiving that bulletin and would like to have it, we shall be very glad to add his name to the mailing list.

A very important phase of the committee's work has been its correspondence. I have been associated with a great many enterprises of a public character, but never have I been associated with a project which has brought instantly from the entire country such a body of inquiry and response as the work of this particular committee—inquiries from governors, from state superintendents, from university presidents, from members of Congress, from leaders in civic and social life. In state after state there is either actual legislation or the beginnings of legislation, and that is a very, very wholesome situation.

The Supreme Court decision which we had a week ago Monday, on April 27, involving the case of the Radio Corporation, is probably one of the greatest decisions of this century in its effect upon American life.

Now, we have to face the educational problems of radio whether we wish it or not; the states have to face those problems whether they wish it or not.

It is one of the amazing things to me that in this entire set-up of radio in the United States we seem quite to have overlooked the rights of the states as states. Obviously the assignment of channels is an international and a national function. The radio impulses which go out under the laws of physics have to have some coordinating body that can see that they do not interfere with each other, one nation

doesn't interfere with another, and that one agency doesn't interfere with another.

That means, of course, that the United States Government itself must assign those frequencies. I see no reason why it needs to mean that the United States Government must deprive the states, as it has done, of the right to use in practice (I do not mean in theory, but in practice) those frequencies for purposes of education and government.

We have the spectacle of ninety channels which are available to the United States by international agreement so distributed that fewer than 7 per cent of the frequencies are available to educational institutions, and so distributed that state after state has no frequency at the present moment which it can use for public purposes; we have the spectacle of a great state like Wisconsin having to come before the Federal Radio Commission and wait month after month for a simple license to operate its station under the guidance of its educational institutions which will reach the citizenship of that state; we have the spectacle of state institutions like the great agricultural college at Corvallis, Oregon, being dragged across this continent at great expense to defend their rights because somebody wants to sell something over in a neighboring state over the radio and would like to have the frequency which they enjoy; we have the spectacle of great institutions like Nebraska Wesleyan, which has pioneered for nearly a decade in the development of radio and the training of radio engineers, with just one-seventh of the time which it originally had, and a recommendation from an examiner of the Federal Radio Commission that that seventh shall be taken away and that it shall close up shop.

Now, if situations like that can exist under the administration of officers who ostensibly represent and are paid by the American people, however well intentioned they may be, it is time for the educational people of this nation to wake up.

Obviously, if we leave the development of this great new tool in the hands of men who have come into this field through naval radio or through army radio or through

commercial radio, or through some legal aspect—whose background is utterly lacking in broad contacts with the general public—we are going to get a one-sided development.

America is just on the eve of a new age. All of you recognize that this generation will probably determine largely, for centuries to come, many of the patterns of American life. We are not a civilized nation. Anyone who rides over the country or participates in its activities knows that only in spots are we civilized, and the job of education isn't just to grant a few degrees, as has been pointed out here this morning. It is to produce a civilization in an individual or state or nation.

Civilization isn't something that is handed down from above—even if you can build a $250,000,000 radio center in New York to try the experiment. Civilization is something that grows up out of the soil of people's lives and needs and aspirations and requires personal cultivation.

It would have been a vastly wiser procedure from an educational point of view, and I believe from a commercial point of view, if we could have had in each county of the United States a broadcasting system which would be the expression of the very finest elements in the educational and civic and religious and social life of that county, so that out of the people's lives would have grown a use of the radio, would have grown a content for the radio, a skill in handling this new tool; and out of that vast culture originating down in some thirty-three hundred counties would have come the talent and the organization upon which we could have built state-wide and regional and national, and eventually a world-wide radio. But of course the development, more or less inevitably, because of the character of invention and of the industries which handle radio, has started from the top, and I believe at no time in its history has it sunk to so low level as it has at the present moment.

It is very difficult to get the public to realize that, because the public is still fascinated by the occasional unusual radio performance. It isn't quite ready to realize the total effect of performances, 99 per cent of which are far below what we should be willing to accept in American life.

On the first of May I sat on the platform down in the Arlington Hotel at Hot Springs and listened to a discussion of parent education by our Commissioner Cooper which came to the great National Congress of Parents and Teachers from San Diego, California. I do not see how anyone could sit in that audience of representative citizens from all over the United States and see the effect which that teaching, coming from hundreds of miles off in the distance, had on that group, and have any question as to the possibility and place of education by radio in the United States. We shall use it in the elementary schools, the high schools, and even in the colleges, and we shall use it most of all in the general education of adults in their homes.

This National Committee on Education by Radio, through discussion, through publication, through research, through conference, and through correspondence, operating over a period of five years at least, is going to do what it can to give direction and guidance and to be a clearing house for the development of education by radio in the United States.

JOY E. MORGAN,
Washington, D. C.

The Chicago Plan

THERE are those who are of the opinion that the University of Chicago plan has been sufficiently discussed —for the time being, at any rate. I am among them. But I found myself with an invitation from your Executive Committee signed by your Director and with explicit instructions from the head of my department, who is also your chairman; and this combination of flattery and coercion proved stronger than what I still consider to have been my better judgment.

For, after all, the Chicago plan is not yet in operation. I suspect that certain aspects of it have not even yet been conceived. And I can assure you that there is no single individual who is completely informed as to the exact status of the plan at this particular moment. To be sure, there has been a change in the administrative structure of the university which, it is hoped, may facilitate progress toward ends which are deemed desirable; certain methods and objectives have been agreed to in terms always general and sometimes ambiguous; and a tremendous amount of energy and enthusiasm is being applied to the elaboration of the necessary concrete detail which will in the end be the substantial expression of the Chicago plan.

If I have given you the impression that the University of Chicago is proposing to undertake an educational program, the details of which have not been completely worked out, that impression is entirely correct. I sincerely hope that this may always be the case. Certainly the arrangements for decentralized responsibility are such as to encourage imaginative educational activity throughout the institution. But, on the other hand, it would be incorrect to leave with you the impression that the plan has no intellectual history or that it is an exotic development unrelated to the current of American educational thought.

The external educational influences which had the most direct bearing on the development of the plan are to be found at Columbia, Harvard and the University of Minne-

sota. The survey course at Columbia, the comprehensive examination at Harvard, the experiments in teaching method at Minnesota are reflected in the plan at many points. The most important foreign influence has probably been the freedom and personal intellectual responsibility which have been given to the student of the continental European university.

A new restlessness came to the University of Chicago, as it did to so many institutions, immediately following the war. The causes were doubtless many; in view of their widespread influence in American education, they were probably general and pervasive, and the obvious specific influences at particular institutions derived their strength and efficacy in part from these vaguer but compelling trends. Certainly war and peace had challenged conventional educational ritual; certainly the changes in the secondary schools, both with respect to the numbers of students and the character of instruction, had altered established curricular relationships. The attempts of universities and colleges to increase their endowments led to contacts between administrators and alumni with results which have been reported as somewhat disillusioning to the administrators. It has also been reported that the alumni found occasional opportunities to express themselves as to their impressions of the educational process which they had experienced. Whatever the causes, the period since 1920 has been one of general educational self-criticism and open-mindedness, and the University of Chicago, like other institutions, was influenced by the spirit of the times.

During the administration of President Burton, in 1922 and 1923, the ferment in the faculty was widespread, and President Burton encouraged the search for new objectives and new methods. President Mason stimulated further questioning and examination of existing forms and procedures, and during his administration a Committee of the Senate of the University was appointed, which reported on May 1, 1928. In this report, one may find the following statements:

"Any student in senior college may take any or all of the

examinations for the bachelor's degree at any time they are offered, provided that his counselor agree that he is ready. . . .

"Each candidate shall pass three final comprehensive examinations on fields of information and fields of thought rather than on courses. . . .

"Any student in junior college may take the examinations for admission to senior college at any time they may be offered, provided that his dean agree that he is ready, even though the student may have been in residence no more than one quarter. . . .

"The faculty action creating the College Board of Examiners should not be too specific in definition and detail but should be enabling legislation with the understanding that the Board will act continuously as a bureau of educational research, conducting always an on-going study of all educational problems with which it may be confronted."

The Faculty of Arts, Literature and Science on May 15, 1928, having resolved that study of educational and administrative problems should proceed, further specified "that in making such studies, the boards shall have in mind, as ends to be attained as far as may be practicable:

"(*a*) The substitution of fields of study for the present course units.

"(*b*) The provision of opportunity for the exceptional student to make more rapid progress.

"(*c*) The abolition of the present system of counting credits for a degree and the substitution therefor of either comprehensive examinations or of some other method of demonstrating accomplishment.

"(*d*) In general, greater emphasis upon the student's opportunity and responsibility for his own education."

I have gone into detail here with respect to the internal history of the Chicago plan, with these documentary materials, in order to eliminate any surprise which any of you may have that the University of Chicago faculty in October, 1930, should have adopted these principles. The reason is simply that they had been long under critical discussion and that they represented the mature judgment of the faculty as to the basis on which it wished the educational program of the university to proceed.

The University of Chicago plan is, therefore, to be considered as one of the many manifestations of the growth of educational thinking of the past decade. It has taken its particular form as a result of long study from within and various influences from without. Although it is the expression of an institutional consciousness at a specific place and a specific time, its meaning will be only imperfectly understood unless it is contemplated in its setting, not as a thing apart.

I shall not attempt to describe the organizational structure of the university or to deal comprehensively with the various objectives and methods which are involved in the plan. There are, however, three or four aspects of the plan which are of particular interest to me, and, in the hope that they will interest you, I shall discuss them briefly.

The abolition of course credits, marks, attendance records as a basis for the awarding of degrees and the substitution of the comprehensive examination, thesis or other objective method of determining whether a student is able to meet a predetermined educational standard is only a slight change from practices now current at many institutions. Yet it is believed that the change will have a profound influence on the temper of work at the university.

The student is placed entirely on his own responsibility as far as the development of his intellectual life is concerned. The university virtually says, "Here is an opportunity. Make of it what you will. We have set certain standards defining what we mean by certain certificates and degrees. If and when you can meet these standards, the university will so certify."

The student will be provided with adequate counseling, to be sure; he will have the benefit of advice as to work that would be most profitable to him; but there will be no compulsion, no formal regulations, no credits or cuts which will either push him along or hold him back. He may adopt any method of study that he finds profitable and congenial. He may attend lectures, or discussion groups, or with his friends may organize discussion and reading groups of his

own. He may work in term time and loaf in vacation, or he may work in vacation and loaf during the term. Subject to certain minimum requirements for residence, he may spend much time or little on the campus. He may pursue his studies in Chicago, in Paris, or in Berlin.

Even more important, the student will not think of the educational process as the accumulation of credits which add up to their inevitable degree. Although there is not general agreement on the point, it is nevertheless widely believed that the credit system has outlived its usefulness as a means of measuring educational accomplishment. The reason for this seems clear. The credit is a symbol; it is the thing of which it is supposed to be a symbol that is educationally important. But there has developed, as always with symbols, confusion between the sign and the thing signified. And since in our educational machine the sign has been the thing that counted, the attention and the effort of the student, and the attention and the thought of the faculty were inevitably directed toward the sign, the symbol, the credit. The student applied himself to the getting of credits, and the methods were not always intellectual; the faculty reorganized the curriculum by re-shuffling the credits. And as for the deans, they granted and withheld degrees and privileges on the basis of rules drawn up in terms of these academic counters.

The abolition of these familiar symbols will produce an important change in the intellectual outlook of both faculty and student. I suspect that the student will adjust to the new arrangement more easily than will the teacher. The effect of the change may only be temporary, since the examination becomes the new symbol of proficiency, and, unless there is insight and imagination in the examining, the old deadening influences will creep in, and the passing of the examination will then be confused with the getting of an education.

It is unlikely that the educational process will be completely purified until the non-professional degree itself can be abolished. By most students, both graduate and undergraduate, what is wanted is not an education but a degree,

because in American life it is the degree that counts. The universities and colleges are filled with students, not because higher education is important but because the degree is important. Let some institution offer the degree with matriculation, or, better yet, not offer it at all. The quality of the student body, if any, and the whole tone of the institution would be profoundly changed.

The university is aware that students will not profit equally under the freedom from compulsion that characterizes the plan. It is true that some individuals do profit from imposed training, and at certain stages of individual development externally administered intellectual discipline has a beneficial effect. But this type of training the University of Chicago does not feel able to supply. It must be obtained either earlier or elsewhere. It is believed that the advantages of maintaining an atmosphere of freedom, of placing clearly upon the student the responsibility for his own intellectual development, will produce stronger mind and character in the end, even though there may be many wasted hours and an initial period of adjustment.

The Chicago plan does not contemplate the division of students into "pass" and "honors" groups in such a manner that the individual can be identified as a "pass" or "honors" student. It is recognized that some students wish to do some things more intensively than do others. Provision will be made whereby a student, if he wishes and has the ability, may qualify for unusual opportunities in particular fields. He may qualify for these opportunities in several fields, in one field, or in none. It is hoped that most students at some time will avail themselves of these special advantages. But the university would prefer not to classify the student. The difficulty comes with the "pass" classification. It is felt that the presence of a group of students who can be so identified would influence unfavorably the university's attempt at increased individualization of the educational program.

Mention should be made of the university examiner, who is charged with the responsibility of setting and evaluating all examinations for the certificates and degrees of the uni-

versity. In performing this task, he will of course, collaborate with members of the faculty. It is the intention, however, to separate as far as practicable the examining from the teaching function. It is believed that the examiner and his assistants will be able to perfect the technique of examination and educational measurement and will be able to devise methods of comparative evaluation that are essential in a critical analysis of various pedagogical devices.

The test or examination which is used simply for purposes of instruction will continue to be handled by the individual instructor. The usefulness of such tests has never been questioned, and they will be given for their teaching values. But they are to have relation neither to credits nor to marks, that they may be taken by the student at his option. In order that transfer to other institutions may be arranged, a record will be kept of satisfactory or unsatisfactory work in such courses as the student may attend. But this record will have no official status in connection with the awarding of certificates and degrees.

The Chicago plan has been drawn to provide explicitly for a flexible articulation with the changing programs of the secondary schools on the one hand and with the graduate and professional divisions of the university on the other.

Under the plan, the college is created for the purpose of receiving students from the secondary schools and of completing their formal, liberal education. The definition of a liberal education for the purposes of the college is to be made by the college faculty, and the evidence that a student has met a satisfactory standard will be a certificate which will be issued to the student by the university on the basis of reports from the university examiner. The period of residence in the college is not fixed, but the program is being drawn in the expectation that the average student, by spending about 20 per cent more hours per week on his academic work than has been the custom, can complete the college work in two nine-month academic years. Examinations, comprehensive or otherwise, will be the basis of the university examiner's report, and these will be prepared in

terms of detailed syllabi which will be printed and made generally available.

It seems probable that, in a short period of time, the more able students in the secondary schools will be given an opportunity by their school principals to begin their college work before they actually come to the university campus. There will be an inevitable trend toward the shortening of the period of residence, as a result both of specific preparation of the abler students in the secondary schools and of the general improvement that is constantly going on at that level.

The university must, therefore, choose between a shortening of the college period, and an increase, qualitatively and quantitatively, in its standard for the college certificate. It is conceivable that in time this standard may be equivalent to the present standard set for the four-year undergraduate period.

Looking toward the divisions and professional schools, the college is able both to cooperate and to resist. The present temper of these divisions of the university is favorable toward the provision of a broader and deeper liberal foundation as the starting point for more advanced specialized work. With this point of view, the college is in hearty sympathy. On the other hand, the college is able to resist the intrusion of pre-professional materials or departmental specialization that seem to it inconsistent with its own conception of what a liberal education should be.

The college, with its flexibility and its power, offers a splendid mechanism for meeting a rapidly changing situation at both lower and higher levels, and at the same time for safeguarding the ideal of liberal education, which every one agrees should be upheld but which is in danger of being weakened as a result of numerous specialized demands of an essentially vocational character.

In conclusion, I wish to comment on the implication of the plan for advanced instruction and research. All non-professional academic work above the college level is divided among four divisions: Biological Sciences, Humanities,

Physical Sciences, and Social Sciences. Each division has its dean, its departments, and its faculty. Some departments and some members of the faculty are in more than one division. It is the purpose of each division to promote research and creative thinking and to offer instruction in its own general area. The degrees of the university are awarded on the recommendations of the divisions.

It had been my expectation that, under this divisional arrangement, the existing departmental structure would be weakened and that the departments would become more and more formal and finally pass away. I am now convinced that such will not be the case, and that the departments, far from being weakened by the divisional organization, will be strengthened by it. The reason for this belief is that the previous dangers of strong departmental units—specialism, isolation, and sometimes even arrogance—are largely eliminated, and in consequence each department may become as strong as it is possible for it to grow. The administrative head of each division is aware of research proposed or under way in the various departments of the division and is able to take the initiative in making helpful contacts and in presenting needs and opportunities to the general administration.

Improved contacts between men in different divisions are possible through the new administrative provisions. It is possible to canvass the activities of the university on a particular group of problems by approaching four sources of information rather than thirty. Such flexibility and possibility of articulation is of the greatest importance for the advancement of research, since it brings to the individual worker the full resources of the institution, concerning many of which he may have been ignorant.

The capacity of the university for research will be increased by changes in the teaching program of the divisions. The number of formal systematic courses will be substantially reduced, providing in each field only a central core of closely organized materials. This is possible, since course credits are no longer needed for degree purposes. The sys-

tematic teaching will then be supplemented by lecture series, seminars, conferences, and so forth, of irregular length and related to the special problem or interest of the instructor. It is hoped that teaching may thus become an aid to research rather than a distraction from it.

As I said in the beginning, the plan is not yet in operation. Much of what I have said is wishful thinking. The university is realistic; it expects to be disappointed in some of its hopes; it expects to find unplanned-for benefits as a result of its efforts. And it extends to the members of this council a hearty and sincere invitation to visit, to discuss, to suggest, to criticize, all in the interest of educational ends which we all value.

BEARDSLEY RUML,
The University of Chicago.

Constitution of American Council on Education

1. NAME: The name of the organization shall be "American Council on Education."

2. OBJECT: The general object of the Council is to promote and carry out cooperative action in matters of common interest to the Associations represented. It is understood that such matters will lie mainly in the field of university and college work, and in related educational fields. The Council was organized to meet national needs in time of war and will always seek to render patriotic service. It will also encourage international cooperation in educational matters.

3. MEMBERSHIP: The membership of the Council shall consist of three classes of members—constituent, associate, and institutional.

Constituent Members: This group shall consist of national educational organizations and such other bodies having similar interests as may from time to time be added by the Council.

Each organization shall be represented on the Council by three members who shall vote as a unit through a designated person. It is recommended that each organization, in the first election following the date of this meeting, elect one member for a term of one year; one for a term of two years; and one for a term of three years; and that all subsequent elections be for terms of three years. Elections of new members to the Council shall take effect immediately following such elections. Any election to fill a vacancy occurring during the year shall take effect at once, and shall be for the remaining period of the term thus filled.

The Council shall report its actions to the several organizations at the close of each year ending April 30, and at such other times as may be desired.

Associate Members: Associate members shall consist of such organizations having interests related to the work of the Council as may from time to time be elected by the Council. Associate members may send one representative each to the meetings of the Council, without right to vote.

Institutional Members: This group shall consist of colleges, universities and professional and technical schools of similar grade, that contribute not less than one hundred dollars to the treasury of the Council, and of other organizations of high standing that carry on higher educational activities or cooperate with educational institutions in improving instruction, and that contribute not less than two hundred dollars a year to the treasury of the Council. The conditions of eligibility for institutional membership, both for educational institutions and for other organizations, and the scale of membership fees shall be fixed by the Executive Committee of the Council. Insti-

tutional members may send one representative each to the meetings of the Council. Whenever a vote is taken, if there are negative votes, the institutional members shall be counted separately and no action shall be valid unless supported by a majority of the constituent members present and voting. On request of any three members any matter directly affecting institutional members shall be made the subject of a referendum vote by them before final action is taken by the Council.

4. DUES: The annual dues for constituent members shall be $100 a year, for associate members $10 a year, and for institutional members from $100 to $500 a year for educational institutions, and from $200 to $2,500 a year for other organizations, a portion of which shall be for one or more subscriptions to THE EDUCATIONAL RECORD at $2.00 a year for each subscription, the number of copies to which each member is entitled being fixed by the Executive Committee.

5. OFFICERS: The Council shall elect a Chairman, a first Vice-Chairman, a second Vice-Chairman, a Secretary, a Treasurer and such other officers as from time to time may seem desirable. The Treasurer need not be a member of the Council. All funds for which the Council, or any of its committees, is responsible, shall be received by the Treasurer and shall be disbursed by him under proper authority.

The Council shall also elect a salaried Director, who shall be the chief executive officer. He shall have general administrative supervision of the affairs of the Council and shall be responsible for the carrying out of such plans and policies as the Council, or its executive committee, may approve. He shall be *ex officio* a member of the executive committee and of all standing committees. He shall report annually to the Council, and shall make such other reports as the Chairman of the Council may request.

All officers, except the Director, shall be elected at the Annual Meeting, and their terms of office shall begin immediately following election.

6. EXECUTIVE COMMITTEE: There shall be an Executive Committee consisting of eleven members, eight selected from the representatives of the constituent organizations, and the Director, Associate Director, and the United States Commissioner of Education *ex officio*. The Chairman and Secretary of the Council shall be Chairman and Secretary, respectively, of the Executive Committee. The remaining six members shall be elected by the Council, two at each annual meeting to serve for a three-year term. The Executive Committee shall hold meetings at least quarterly, and shall report its actions to the members of the Council after each meeting.

In case a member of the Executive Committee shall fail to attend (or to designate an alternate) at two meetings of the Executive

Committee, he shall cease to be a member thereof. In case of a vacancy on the Executive Committee, the Committee shall have power to fill the vacancy until the next meeting of the Council.

7. MEETINGS: The annual meeting of the Council shall be held on the first Friday in May. Special meetings may be called by the Chairman. The Chairman shall call a meeting at any time at the request of representatives of any three constituent organizations.

Written notice of all meetings shall be sent to all members at least two weeks in advance, except in special circumstances when this provision may be waived by consent of the representatives of two-thirds of the organizations constituting the Council.

Those present at any meeting of which written notice has been duly given, shall constitute a quorum for the transaction of business, but no action shall become effective until approved by representatives of a majority of the organizations constituting the Council.

8. BUDGET: The Executive Committee shall present a budget each year at the annual meeting, and no financial obligation shall be incurred by any officer or committee except as authorized by the Council or the Executive Committee. The fiscal year of the Council shall close on April 30.

9. TRAVELING EXPENSES: The traveling expenses of the officers and the Executive Committee may be paid from the funds of the Council.

It is recommended that the traveling expenses of the other members attending the meetings of the Council be paid by the organizations which they represent.

10. COMMITTEE APPOINTMENTS: The Council and the Executive Committee may appoint special committees. All committee appointments shall expire April 30, with right to reappointment. The members of committees may be selected from the members of any institution associated with one of the organizations constituting the Council. Chairmen of committees shall be invited to sit with the Council, without right to vote.

11. AUTHORITY OF COMMITTEES: Final responsibility for all undertakings rests with the Council. The Executive Committee shall act for the Council between meetings, but shall refer all questions involving new policy to the members of the Council for letter ballot before taking final action. Committees are not authorized to commit the Council to any undertaking not specifically authorized by the Council or its Executive Committee.

12. AMENDMENTS: This Constitution may be amended at any time by vote of three-fourths of the organizations constituting the Council.

Written notice of any proposed change in the Constitution shall be sent to all constituent members of the Council at least two weeks before the meeting at which the proposed change is to be considered.

Officers of the American Council on Education, 1931-32

Chairman: Albert B. Meredith, School of Education, New York University, representing the Department of Superintendence, National Education Association.

First Vice-Chairman: R. D. Hetzel, President, Pennsylvania State College, representing the Association of Land Grant Colleges.

Second Vice-Chairman: Shelton Phelps, George Peabody College for Teachers, representing the American Association of Teachers Colleges.

Secretary: Henry Grattan Doyle, The George Washington University, representing the American Association of University Professors, and the Association of Colleges and Secondary Schools of the Middle States and Maryland.

Treasurer: Corcoran Thom, American Security and Trust Company, Washington, D. C.

Director: Charles Riborg Mann.

Associate Director: John Henry MacCracken.

Assistant to the Director: Charles E. Hewitt.

Executive Committee: For 3 years—Charles H. Judd, School of Education, University of Chicago, representing the North Central Association of Colleges and Secondary Schools; Florence Bamberger, Johns Hopkins University, representing the National Education Association. For 2 years—Samuel P. Capen, Chancellor, University of Buffalo, representing the Association of American Colleges and the Association of American Medical Colleges; P. J. McCormick, Catholic University of America, representing the National Catholic Educational Association. For 1 year—R. M. Ogden, Cornell University, representing the Association of American Universities; C. C. McCracken, President, Connecticut Agricultural College, representing the Council of Church Boards of Education; the Director, Associate Director, and the U. S. Commissioner of Education, *ex officio.*

CONSTITUENT MEMBERS AND THEIR DELEGATES FOR 1931-1932

AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY:

Charles H. LaWall, Philadelphia College of Pharmacy, West Philadelphia, Pa.

R. A. Lyman, College of Pharmacy, University of Nebraska, Lincoln, Nebr.

A. G. DuMez, School of Pharmacy, University of Maryland, Baltimore, Md.

AMERICAN ASSOCIATION OF DENTAL SCHOOLS:
Frederic R. Henshaw, School of Dentistry, Indiana University, Indianapolis, Ind.
DeLos L. Hill Atlanta-Southern Dental College, Atlanta, Ga.
R. S. Vinsant, College of Dentistry, University of Tennessee, Memphis, Tenn.

AMERICAN ASSOCIATION OF JUNIOR COLLEGES:
Richard G. Cox, Gulf Park College, Gulfport, Miss.
G. H. Vande Bogart, Northern Montana School, Havre, Mont.
Doak S. Campbell, George Peabody College, Nashville, Tenn.

AMERICAN ASSOCIATION OF TEACHERS COLLEGES:
Norman W. Cameron, State Teachers College, West Chester, Pa.
J. L. Jarman, State Teachers College, Farmville, Va.
Shelton Phelps, George Peabody College, Nashville, Tenn.

AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS:
H. G. Doyle, George Washington University, Washington, D. C.
H. C. Lancaster, Johns Hopkins University, Baltimore, Md.
H. W. Tyler, 744 Jackson Place, Washington, D. C.

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN:
Kathryn McHale, 1634 Eye Street, N.W., Washington, D. C.
Belle Rankin, 1634 Eye Street, N.W., Washington, D. C.
Esther Richards, Henry Phipps Psychiatric Clinic, Johns Hopkins University, Baltimore, Md.

AMERICAN LIBRARY ASSOCIATION:
H. H. B. Meyer, Legislative Reference Service, Library of Congress, Washington, D. C.
H. W. Craver, Engineering Societies Library, New York City.
Clara W. Herbert, Public Library of the District of Columbia, Washington, D. C.

ASSOCIATION OF AMERICAN COLLEGES:
Guy E. Snavely, Birmingham-Southern College, Birmingham, Ala.
J. Edgar Park, Wheaton College, Norton, Mass.
S. P. Capen, University of Buffalo, Buffalo, N. Y.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES:
S. P. Capen, University of Buffalo, Buffalo, N. Y.
Burton D. Myers, Indiana University, Bloomington, Indiana.
Fred C. Zapffe, 25 East Washington Street, Chicago, Ill.

ASSOCIATION OF AMERICAN UNIVERSITIES:
Guy Stanton Ford, University of Minnesota, Minneapolis, Minn.
Henry Gordon Gale, University of Chicago, Chicago, Ill.
Robert M. Ogden, Cornell University, Ithaca, N. Y.

ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE MIDDLE STATES AND MARYLAND:
H. G. Doyle, George Washington University, Washington, D. C.
Samuel Osbourn, Germantown Academy, Philadelphia, Pa.
Ralph E. Files, East Orange High School, East Orange, N. J.

ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS OF THE SOUTHERN STATES:

Guy E. Snavely, Birmingham-Southern College, Birmingham, Ala.

W. H. Faulkner, University of Virginia, University, Va.

D. W. Peters, State Supervisor of Secondary Education, Richmond, Va.

ASSOCIATION OF LAND GRANT COLLEGES:

E. C. Brooks, North Carolina State College, Raleigh, N. C.

R. D. Hetzel, Pennsylvania State College, State College, Pa.

R. A. Pearson, University of Maryland, College Park, Md.

ASSOCIATION OF URBAN UNIVERSITIES:

Henry J. Doermann, University of the City of Toledo, Toledo, Ohio.

Vincent W. Lanfear, University of Pittsburgh, Pittsburgh, Pa.

C. S. Marsh, University of Buffalo, Buffalo, N. Y.

COUNCIL OF CHURCH BOARDS OF EDUCATION:

John L. Seaton, Albion College, Albion, Mich.

Robert L. Kelly, 111 Fifth Avenue, New York City.

Frederick E. Stockwell, Witherspoon Building, Philadelphia, Pa.

COUNCIL ON MEDICAL EDUCATION AND HOSPITALS OF THE AMERICAN MEDICAL ASSOCIATION:

N. P. Colwell, 535 North Dearborn Street, Chicago, Ill.

Reginald Fitz, Peter Bent Brigham Hospital, Boston, Mass.

Merritte W. Ireland, War Department, Washington, D. C.

DENTAL EDUCATIONAL COUNCIL OF AMERICA:

Henry L. Banzhaf, 1217 Grand Avenue, Milwaukee, Wis.

F. T. Breene, State University of Iowa, Dental School, Iowa City, Iowa.

C. Victor Vignes, 921 Canal Bank Building, New Orleans, La.

DEPARTMENT OF SUPERINTENDENCE, NATIONAL EDUCATION ASSOCIATION:

Frank W. Ballou, Franklin School, Washington, D. C.

Albert B. Meredith, New York University, New York City.

S. D. Shankland, 1201 16th Street, N.W., Washington, D. C.

INSTITUTE OF INTERNATIONAL EDUCATION:

Anson Phelps Stokes, 2408 Massachusetts Avenue, N.W., Washington, D. C.

William F. Russell, Teachers College, Columbia University, New York City.

S. P. Duggan, Institute of International Education, New York City.

NATIONAL ASSOCIATION OF STATE UNIVERSITIES:

G. H. Denny, University of Alabama, University, Ala.

W. A. Jessup, State University of Iowa, Iowa City, Iowa.

A. H. Upham, Miami University, Oxford, Ohio.

NATIONAL CATHOLIC EDUCATIONAL ASSOCIATION:

Rt. Rev. Msgr. Edward A. Pace, Catholic University of America, Washington, D. C.

Rt. Rev. P. J. McCormick, Catholic Sisters College, Washington, D. C.

Rev. George Johnson, 1312 Massachusetts Ave., N.W., Washington, D. C.

NATIONAL EDUCATION ASSOCIATION:

George D. Strayer, Teachers College, Columbia University, New York City.

Florence E. Bamberger, Johns Hopkins University, Baltimore, Md.

Frank W. Ballou, Franklin School, Washington, D. C.

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS:

C. H. Judd, University of Chicago, Chicago, Ill.

H. M. Gage, Coe College, Cedar Rapids, Iowa.

G. F. Zook, University of Akron, Akron, Ohio.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION:

L. W. Wallace, American Engineering Council, 744 Jackson Place, Washington, D. C.

C. H. Warren, Yale University, New Haven, Conn.

F. L. Bishop, University of Pittsburgh, Pittsburgh, Pa.

ASSOCIATE MEMBERS

Alumni Association of American Rhodes Scholars.
American Association for the Advancement of Science.
American Association of Collegiate Registrars.
American Association of Museums.
American Council of Learned Societies.
American Historical Association.
American Institute of Architects.
American-Scandinavian Foundation.
Association of Collegiate Schools of Architecture.
Character Education Institution.
C. R. B. Educational Foundation.
Engineering-Economics Foundation.
Federated Council on Art Education.
Modern Language Association of America.
National Association of Deans of Women.
National Association of Placement and Personnel Officers.
National Committee of Bureaus of Occupations.
National Council on Religion in Higher Education.
National Council of Teachers of English.
National Research Council.
National Society of College Teachers of Education.
National Vocational Guidance Association.
United Y. M. C. A. Schools.

Institutional Members, 1931-32

ALABAMA:
- Alabama Polytechnic Institute
- Alabama, University of
- Birmingham-Southern College
- Howard College

ARIZONA:
- Arizona, University of

CALIFORNIA:
- California Institute of Technology
- California, University of
- Claremont Colleges (Pomona-Scripps)
- College of the Pacific
- Dominican College
- Immaculate Heart College
- Mills College
- Occidental College
- Southern California, Univ. of
- Stanford University

COLORADO:
- Colorado College
- Colorado State Teachers College
- Denver, University of
- Loretto Heights College

CONNECTICUT:
- Connecticut Agricultural College
- Connecticut College
- Junior College of Connecticut
- Wesleyan University
- Yale University

DELAWARE:
- Delaware, University of

DISTRICT OF COLUMBIA:
- American University
- Catholic University of America
- Georgetown University
- George Washington University
- Howard University
- Trinity College

FLORIDA:
- Florida State College for Women
- Florida, University of
- Rollins College

GEORGIA:
- Agnes Scott College
- Emory University
- Georgia School of Technology
- Georgia State College for Women
- Georgia, University of
- Shorter College
- Wesleyan College

HAWAII:
- Hawaii, University of

ILLINOIS:
- Carthage College
- Chicago, University of
- De Paul University
- Illinois College
- Illinois, University of
- Lake Forest College
- Lewis Institute
- Loyola University
- Northwestern University
- Rockford College
- Rosary College
- St. Xavier College

INDIANA:
- DePauw University
- Indiana State Teachers College
- Indiana University
- Notre Dame, University of
- Purdue University
- Rose Polytechnic Institute
- St. Mary's College, Notre Dame
- St. Mary-of-the-Woods College

IOWA:
- Coe College
- Grinnell College

IOWA—*Continued*
Iowa State College of A.&M.A.
Iowa State Teachers College
Luther College
State University of Iowa

KANSAS:
Wichita, Municipal University of

KENTUCKY:
Centre College
Georgetown College
Kentucky, University of
Louisville, University of

LOUISIANA:
Louisiana State Normal College
Louisiana State University
Southwestern Louisiana Institute
Tulane University

MAINE:
Bowdoin College

MARYLAND:
Goucher College
Hood College
Johns Hopkins University
Maryland, University of
Mt. St. Mary's College
Notre Dame College
St. John's College
St. Joseph's College
Western Maryland College

MASSACHUSETTS:
Amherst College
Boston College
Boston University
Bradford Academy, the Junior College of
Clark University
Harvard University
Holy Cross College
International Y. M. C. A. College
Mass. Institute of Technology
Mt. Holyoke College

MASSACHUSETTS—*Continued*
Radcliffe College
Simmons College
Smith College
Wellesley College
Wheaton College
Williams College

MICHIGAN:
Albion College
Alma College
Detroit, University of
Kalamazoo College
Marygrove College
Michigan, University of
Western State Teachers College

MINNESOTA:
Carleton College
College of St. Catherine
College of St. Scholastica
College of St. Teresa
Hamline University
Macalester College
Minnesota, University of
St. Olaf College

MISSISSIPPI:
Millsaps College
Mississippi A. & M. College
Mississippi Woman's College

MISSOURI:
Central College
Lindenwood College
Missouri, University of
Northeast Missouri State Teachers College
Northwest Missouri State Teachers College
The Principia
St. Louis University
Washington University
Webster College

MONTANA:
Montana, University of

NEBRASKA:
Nebraska, University of

NEW HAMPSHIRE:
Dartmouth College
New Hampshire, University of

NEW JERSEY:
College of St. Elizabeth
Georgian Court College
Rutgers University
Stevens Institute of Technology

NEW MEXICO:
State University of New Mexico

NEW YORK:
Adelphi College
Alfred University
Buffalo, University of
Colgate University
College of the City of New York
College of Mt. St. Vincent on Hudson
College of New Rochelle
College of the Sacred Heart
Columbia University
Cornell University
Elmira College
D'Youville College
Fordham University
Good Counsel College
Hamilton College
Hunter College
Keuka College
Manhattan College
Marymount College
Nazareth College
New York State College for Teachers
New York University
Polytechnic Institute of Brooklyn
Rensselaer Polytechnic Institute
Rochester, University of
Russell Sage College
Sarah Lawrence College

NEW YORK—*Continued*
Skidmore College
Syracuse, University of
St. Joseph's College for Women
Union College
Vassar College
Wells College

NORTH CAROLINA:
Catawba College
Duke University
North Carolina College for Women
North Carolina, University of

OHIO:
Akron, University of
Case School of Applied Science
Cincinnati, University of
Dayton, University of
Denison University
Heidelberg College
Marietta College
Miami University
Muskingum College
Notre Dame College
Oberlin College
Ohio Wesleyan University
Otterbein College
Western Reserve University
Wittenberg College

OKLAHOMA:
Oklahoma A. & M. College
Oklahoma, University of
Tulsa, University of

OREGON:
Oregon State Agricultural College
Oregon, University of

PENNSYLVANIA:
Allegheny College
Bryn Mawr College
Bucknell University
Carnegie Institute of Technology

PENNSYLVANIA—*Continued*
Drexel Institute
Dropsie College
Grove City College
Immaculata College
Lafayette College
La Salle College
Lehigh University
Marywood College
Mt. St. Joseph College
Pennsylvania College for Women
Pennsylvania State College
Pennsylvania, University of
Pittsburgh, University of
Rosemont College
Seton Hill College
St. Thomas College
Swarthmore College
Temple University
Villanova College
Wilson College

RHODE ISLAND:
Brown University

SOUTH CAROLINA:
Converse College
South Carolina, University of
Winthrop College

SOUTH DAKOTA:
Huron College
South Dakota State School of Mines

TENNESSEE:
Chattanooga, University of
Fisk University
Southwestern
Vanderbilt University

TEXAS:
Baylor University
Incarnate Word College
Our Lady of the Lake College
Rice Institute
Texas, University of

UTAH:
Brigham-Young University
Utah Agricultural College

VERMONT:
Middlebury College
Vermont, University of

VIRGINIA:
College of William and Mary
East Radford State Teachers College
Sweet Briar College
Virginia Polytechnic Institute
Virginia, University of
Washington and Lee University

WASHINGTON:
College of Puget Sound
Washington, University of

WEST VIRGINIA:
Bethany College
West Virginia State College

WISCONSIN:
Lawrence College
Marquette University
Milwaukee-Downer College
Mt. St. Mary's College
Wisconsin, University of

WYOMING:
Wyoming, University of

The Educational Record

Published Quarterly By

The American Council on Education

Volume 12 October, 1931 No. 4

Editor:
C. R. MANN

CONTENTS

World Economic Planning
Newton D. Baker

Examinations in the University of Life
Owen D. Young

What Action Is of Most Worth?
C. R. Mann

Significant Actions and Criteria of Achievement

Congress of the Universities of the British Empire
John H. MacCracken

A State University Reaches Out
Philip A. Parsons

The Form of the American History Examination of the Cooperative Test Service
E. F. Lindquist

Index

Annual Subscription, $2.00

COPYRIGHT, 1931
AMERICAN COUNCIL ON EDUCATION

NATIONAL CAPITAL PRESS, INC., WASHINGTON, D. C.

World Economic Planning[1]

THE world has progressed a long way since 1918 in the liquidation of the consequences of the World War. To the popular mind, driven alternately by impatient hope and brooding anxiety, the results actually achieved may seem disappointing, but from a detached point of view, they are in fact fundamental in character and both more salutary and more far-reaching in effect than would have been deemed possible by the most optimistic observer at the conclusion of the war.

Even the treaty of Versailles, with what are now recognized as its plain imperfections and concessions to war passions, is coming to be regarded as containing a good starting place for future progress. By its direct and indirect effects it has stimulated the discussions and established the agencies through which much of the progress made since 1918 has been rendered possible.

It is difficult to reconstruct in our memories the atmosphere in which the Versailles treaty was made. With the more obvious embarrassments of the situation I have here no concern.

There were, of course, victors and vanquished, griefs and hatreds, greeds and aspirations, and responsible statesmen were called upon to reconstruct the international social order upon presumptions as to the economic and political consequences of their actions, and very much in the dark, indeed, as to the extent of the catastrophe which they were seeking to repair.

The armistice operated only upon military operations—it did nothing to stay intellectual and emotional hostilities—and the representatives of peoples suddenly relieved from a great fear, and still suffering from a great agony, could do little more than apply first aid to a critically injured world.

Hurried but fairly accurate estimates were made of the loss

[1] Presented at the Institute of Politics at Williams College, July 30, 1931.

of life and destruction of property. Some account was taken of the possible effect of attempting longer to restrain racial aspirations which, under the old regime, had been contained, with difficulty, by force. But no thoughtful person at Versailles could have believed that a treaty written at such a time and under such circumstances could be a permanent, unchanging, and inelastic reordering of the institutions and aspirations of all mankind.

That so much was able to be gotten into the treaty, by way of seed for future growth, is its great excellence, and it is juster to judge it by the things which have grown out of it, rather than by the things which remain in it to be outgrown.

It was the general understanding at Versailles that the relations and obligations fixed by the treaty would, from time to time, be changed. President Wilson expressed this idea repeatedly, while the treaty was under discussion, and after its signature, he constantly pointed out the League of Nations, created by it, as the agency through which necessary changes were to be studied and the reconciliation of world opinion obtained.

WORLD SALVATION CREDITED TO A FEW LEADERS

General Smuts perhaps phrased this general expectation more happily and with more perfect foresight than anybody else, when he said, "I feel that in the treaty we have not yet achieved the real peace to which our peoples were looking, but the real peace of the peoples ought to follow, complete, and amend the peace of the statesmen."

It is this clear recognition of the limitations upon the power and possibilities of statesmen, and the duty and power of "the peoples," that I find the theme upon which I venture to address you today.

In a general way it may be said that the statesmen who have been busy about the post-war reconstruction, have done well—far better than the world had any right to expect. They approached their task burdened with the traditions of the old diplomatic method and the traditional diplomatic point of view.

A brilliant young American historical scholar recently has said that the diplomacy of the world immediately preceding our Spanish War was conducted "in a peculiarly felonious atmosphere." By 1914 there had been no improvement in this regard and the resumption of international relations, interrupted by the war, did not at once change for the better either the manners or the objectives of national policies. In the beginning the League of Nations was a mere balloon sent up to discover whether there was substance enough in the stratosphere of world politics to sustain so daring an adventure.

The answer to that question could not be immediately forthcoming, and the good fortune which saved the world at that stage lay in the fact that there were half a dozen great and enlightened spirits like Lord Robert Cecil, Smuts, Briand and Stresemann who shook off the shackles of the past while it was still too soon fully to comprehend the possibilities of the present or the menace of the future.

Under their leadership, in the great nations, powerfully supported by Branting, Nansen, Benes and others who trooped the small nations back of the ideal, the League of Nations became a going concern, the World Court was firmly established, the treaties of Locarno were made, it became possible to enunciate the principles of the Briand-Kellogg pact which, on paper at least, reverses the fundamental principle of international relations as it had been expounded and defended from the beginning of recorded history.

Such informed criticism as there is of these new institutions deals largely with matters of detail. There is nowhere in the world any responsible suggestion that they are not fundamentally right, and the people of the United States, above all others in the world, should abide their development and improvement by evolutionary processes with the greatest patience and confidence.

PARALLEL CITED IN AMERICAN HISTORY

In our own history it took us ten years under the Articles of Confederation to realize the need of a more perfect union, and

in the nearly 150 years since our Constitution was adopted we have seen it grow and expand beyond the dreams or plans of its founders, acquiring new meanings as new conditions arose, and demonstrating always fresh vitality and adequacy. People who have seen great oaks grown from acorns have no right to doubt what time and good-will and patience will bring out of these great beginnings.

If I have attributed this progress in too great degree to the fortunate accident of the existence of these great personalities, I am not unaware of the presence of irresistible forces at work to aid them. The logic of events is stronger than the wills of men, and conditions, dimly perceived before the World War, have moved with accelerated speed and accumulated momentum in the same direction.

The proposal of these great institutions, dedicated to the preservation of the peace of the world, would have been regarded as "mere idealism," proceeding from an academic assumption of the perfectability of the race, but for the fact that they have actually been set up, and have been in successful operation for ten years. And these facts demonstrate that, among nations as among individuals, *ideals have a better chance when we are poor than when we are rich.*

When the tide of national expansion and colonial acquisition was on, and the possibility of outstripping one's rivals in the armament race still held out the illusory hope of security, if not supremacy, nations were not likely to pass self-denying ordinances or to join in arrangements which denied, by anticipation, the victory and the spoils thereof to the strong. But the first great revelation of the World War was that the strongest nation, under modern conditions, dies, like a bee, when it uses its sting.

The second great revelation of the World War was undoubtedly the universality of the disaster. The song of the victor, as he contemplated his victim sitting in the ashes of desolation, died in his throat when he remembered the cost of his victory.

This was a revelation not to princes and potentates, or to statesmen and generals, but to peoples. There were too

many widow's weeds mingled with the torch bearers in the victory parade, too many mutiles seeking limited readmission to factories and workshops, particularly there was too much dislocation in the processes of international industry and finance to permit any nation to feel itself safe from an overwhelming share in the common disaster. Out of realizations of this general kind came that loss of faith which, for a time, was the most menacing consequence of the whole experience.

Political systems which had been impotent to prevent the catastrophe came under a distrust so deep that they were, with practically no exception, replaced with substitutes of popular origin and theoretically resting on popular sanction. That these new political institutions have taken varying forms presents part of the problem which this institute is to consider. On its program will be found scheduled discussions of capitalism, fascism, and communism, the latter two as represented by Italy and Russia, respectively, in an effort to study out the form of social organization best adapted to meet the demands of modern industrial conditions.

The fact that they are to be discussed, suggests, at least, a question thought debatable as to whether the institutions of the past are either suited to or could be made to suit present and immediately future conditions.

In the consideration of such a question, it seems to me important to have in mind the fact that modern industrialism is very modern, while the political institutions of most of the settled countries of the world are in part an inheritance evolved from centuries of experience and adapted to national temperament; hence, while it is relatively easy to set up a new factory, it is incredibly difficult to set up a new form of government.

The lines which industrial and economic development shall take are determined and tested by concrete and practical experiences, while the political developments of the people, to be suitable at all, must rest upon an historical foundation and be adjusted to emotional responses which have their origin in racial characteristics and are conditioned by linguistic, religious, and philosophical associations.

New forms, established by revolutions, are easily forgotten in times of stress, and the tendency of peoples is to revert to traditional forms when a new and academic institution experiences temporary difficulties.

VINDICATION OF WILSON'S DEMOCRATIC THEORY

Even compact and contiguous bodies of people, living long under one general government, speaking the same language and having identical external interests, preserve with amazing stubbornness racial and temperamental differences.

England and Scotland were united under the same crown in the days of James I, and Wales became a part of the United Kingdom centuries ago; they have a common Parliament, a common army and navy and diplomatic service, to a substantial extent a common literature and a common culture, and yet they are still, respectively, England, Scotland and Wales.

As it is true that the political and industrial institutions of a people interact, consideration must be given to both of them if any attempt is to be made either to gauge or measurably to control the future.

On the political side, the most important change in world conditions has been the disappearance of autocratic and dynastic systems of government and the subjection of the world to democratic influences, even where the forms adopted seem undemocratic.

One immediate effect of this is the necessary replacement of the old diplomatic procedures by processes of open discussion. Probably no one of the Fourteen Points enunciated by President Wilson caused more condescending smiles by its apparent naivete than that which demanded open covenants, openly arrived at, but certainly no statement ever made by him was more prescient or sagacious, for, if the world is to be governed by its peoples, which the growth of the democratic theory implies, that must ultimately and soon come to be the method of international arrangements.

The whole mechanism by which understandings, ententes, and alliances used to be made will have to be, and are being,

revised and things which will not bear the light of day and free discussion will have to be abandoned. Secret treaties and undisclosed obligations cannot be made by statesmen whose only power is delegated by people who consent to nothing as to which they are not fully informed.

Even before the World War this result of the democratic theory was making itself felt—the British statesmen who undertook to consider combinations with France to meet contingencies which might arise did not venture to go beyond "conversations," and when in the opinion of these statesmen vital interests of Great Britain were affected by the evolution of the War, the people of the British Empire could not be summoned to take sides in deference to any understanding previously arrived at.

The difference between the German Emperor mobilizing to support Austria as his ally, and Sir Edward Gray explaining to the British Parliament the situation which had developed, with patient fullness of detail and deep embarrassment lest the government had committed Parliament or the people against their freedom of choice, is an excellent illustration of the difference between the two theories and procedures.

OPEN TREATIES AS EXEMPLIFIED AT GENEVA

Perhaps even a better illustration is afforded by the action of American public opinion upon certain fantastic stories circulated here after the outbreak of the War to the effect that there were understandings between our government and Great Britain or our government and France.

The plain man of the streets shrugged his shoulders and pointed to that provision in the Constitution which vests the treaty making power in the President, by and with the advice and consent of the Senate, and went his way with no sense of possible obligation growing out of any usurpation of power by the Washington Government. It is a recognition of this fact which led General Smuts to say that the Versailles Treaty, made by statesmen, would be completed and amended by peoples.

This is the fact which is at the very basis of the idea of the

League of Nations, where treaties are matters of public record and free discussion is the mechanism of adjustment. This fact underlies all agencies which are nowadays suggested for the adjustment of international disputes: arbitration, conference, conciliation, and adjudication. All imply candid expositions of facts and anticipate the acceptance of awards, compromises, and judgments through the pressure of an informed public opinion.

I have for a long time believed that the United States ought to declare as a fundamental doctrine of its national policy that it will not trade with any nation at war which has been declared, by a competent tribunal, to be the aggressor.

The so-called Burton and Capper resolutions, so far as they go, seem to me to declare the moral sense of the people of the United States, and as most of the important nations of the world are already bound by treaties which accept either the League, or arbitrators to be agreed upon, as competent authorities to pass upon such a disputed question, I have had no difficulty in foreseeing such a policy in effective operation.

No such formal declaration of our national policy has been made by the government, but I think it has been made by the people of the United States, and it is my belief that if a war were to break out anywhere in the world between nations which have agreed to submit their controversies to arbitration and have agreed upon an agency to ascertain the facts and declare, as between them, which is the aggressor, public opinion in the United States would force our government to acquiesce in such a decision and to withhold the support of our resources, public and private, from the aggressor.

In this instance I am confident that public opinion has anticipated and preceded governmental action and that whether any such policy is declared or not, no nation, which aggressively breaks the peace of the world, will find it possible to rely upon American industry or American finance for support, or upon the American Government for any benevolence in its neutrality.

GROWTH OF INTEREST IN PUBLIC AFFAIRS

The part which "peoples" are to play, and are playing, in the readjustment of the world is further illustrated by the extent to which there have grown up in all countries voluntary agencies to study international relations and, by informing public opinion, mobilize it in support of the institutions established by the statesmen, as the formal expression of the new method.

The popular literature on the subject of international relations, in every country in the world, has become literally vast in volume. The number of associations, leagues, institutes, forums, surveys and study groups established abroad for this purpose is not only evidence of the assertion by the public of their interest in what was before regarded as the mystery of state craft, but it is an assurance to the statesmen of these several countries that the democracies back of them are being kept informed and are watchfully sympathetic with every move which is made in the new spirit.

The situation in the United States presents an especially interesting and impressive picture. Our government has preached and practiced isolation.

Those in places of official responsibility have evidently believed that public opinion in the United States turned resolutely in 1918 from any further interest in our political relations with the rest of the world, and they have accordingly accompanied every official manifestation of interest with meticulous and painstaking explanations as to the limitations of the proposed action and its consistency with the rigid maintenance of isolation as a national policy.

Meanwhile, the people of the United States have gone far ahead of their government. Great and enlightened American citizens have, as individuals, participated in and aided practically all of the constructive work undertaken by the League of Nations.

Official representatives of the United States have, of course, "unofficially," been likewise cooperative and helpful. The services rendered by such men as Elihu Root, Charles

G. Dawes, Owen Young, and the experts whom they grouped about them, and expositors of the new mechanisms which have been set up by the new spirit in international affairs like James T. Shotwell and others, have been a peculiarly American contribution, obviously detached and disinterested, and as obviously weighty because of the great experience and learning and the devotion of spirit with which these services have been rendered.

WIDE ACCLAIM FOR HOOVER DEBT MORATORIUM

Meanwhile, in the United States, there have grown up scores of foundations, unions, associations, leagues, and societies, most of them of national scope which seek to inform and concentrate the opinion of great bodies of our people upon problems presented by the new world order. Many of these societies, of course, are highly specialized in their objective, many of them are limited in their field to members of particular religious faiths, or academic, social, or political groups, but, taken together, they manifest a new public interest in international affairs, and the very names of many of these groups imply a recognition of community of interest among the peoples of the world in large areas of action and thought which, prior to the World War, would have been regarded as of local or national concern.

A striking instance of the effect of all this was seen when President Hoover suddenly, and without preliminary preparation of the public mind, announced his plan for a moratorium upon German reparation payments and payments among the former Allies upon the so-called war debts. Continuously, for several years prior to this announcement, official Washington had set its face against any reconsideration or modification of the so-called debt settlement and it resolutely asserted that German-reparation payments had no relation to payments under the American debt settlement, and would not be considered as being in any way related to them.

International groups proposing to open this subject for discussion were discouraged from expecting any willingness

on the part of the government of the United States to interest itself in the reparations question or to recognize anything but complete finality in the settlement it had made of its war debts. There could be no doubt that Washington listened with an anxious ear when the situation in Germany became such that immediate and drastic action, which no country but the United States was in a position to take, became necessary to save the whole European industrial and financial situation.

And if there was joy there must also have been surprise when it was discovered that the people of the United States had long since reached a conclusion upon a subject which Washington, until then, had declined to consider, and that the action of the President, completely at variance with all the doctrines and fixed resolutions proclaimed from Washington, was not only heartily welcomed and approved, but by unanimous consent was declared to be the most conspicuous act of high statesmanship in his career.

RELIANCE UPON PUBLIC OPINION JUSTIFIED

The approval which greeted the action of the President was not limited to groups whose opinion might be regarded as specially well informed—our so-called political intelligentsia—or to groups whose financial interests might give them special concern over the prospect of serious disturbance in the international financial structure.

Those who noted the reception accorded the President's proposal by plain men had the experience of hearing artisans and small business men spontaneously evidencing their understanding and approval.

Whether or not the action taken by the President might not have been taken much earlier may well be questioned, and there are those who find it difficult to believe that a situation which, like this, threatens to affect the whole financial and political situation in the world, should be allowed to develop to the point where instant, unprepared and unexpected action is necessary to prevent revolution or repudiation in a matter of hours.

Questions like these have been and should be put aside for the moment. This is the time to cooperate and not to criticize. Public opinion in the United States has rarely shown itself steadier, more competent, or more restrained than in this critical moment when, if the world is to be saved, action was necessary and criticism could only result in weakening the helpful forces at last stirred to action.

This is all very reassuring, for it shows that our democracy is educating itself, and is prepared to sustain and vitalize the agencies which the statesmen have set up for ordering world affairs. It indicates that the "peoples" to whom General Smuts looked for the amendment of the treaty can be relied upon to work out that happy result. It ought to be reassuring, too, to statesmen who have to deal officially with the contentious questions growing out of the treaty arrangements.

Apparently they can, with confidence, bring these questions into the open for public discussion, propose open methods for their reconsideration and rely upon public opinion to sustain the wise revisions when expert research has supplied the information necessary for the formation of sound popular judgments. Questions like the Anschluss, the Hungarian frontiers, and the Polish Corridor will be sooner and better settled by that method than by indirect approaches through customs unions and private suggestions between the interested nations.

RESPONSIBILITY AND SELF-RESTRAINT

The people seem to remember, even if the statesmen may have forgotten, that the treaties were made not only to settle past controversies, but to arrange future opportunities, and it is, after all, less important to remember ancient grudges and cherish ancient fears than it is to create a brave and liberal atmosphere in which nations can live their future.

But we must not forget as we march into this new era of democratic influences and democratic power that there are grave dangers and responsibilities attending it. Appenzell is, of course, the only pure democracy, and it can exist and

function only because it is so small. With every increase in numbers, with every increase of the area occupied, with every increased diversity of occupation and interest in a democracy, the problem of informing public opinion and restraining impetuous and ill-advised action and giving expression to deliberate judgments increases.

In 1884 James Russell Lowell made his address on Democracy in Birmingham. Stout champion as he was of democracy as a theory of political organization, he nevertheless pointed out that the success of our own democratic experiment was most open to doubt in our great cities where congested masses of men, busy to the point of exhaustion about their own concerns and having little time for meditation, were especially subject to heady and emotional action, to have, as he phrased it, their emotions "trooped" by slogans and to be led into passionate movements before the facts were all bared or discussed or perhaps even known. Lowell, in a footnote to his address, commented on the fact that we had yet to learn the effect of the electric telegraph in conveying information simultaneously to great bodies of people.

Since 1884 this difficulty has increased. Great central news organizations have been established which supply hourly to the world such views of the facts as their agents can procure in hurried competitive searches for important happenings. To the electric telegraph and cable we have added the wireless, and an impatient and impulsive word, delivered in the heat of an extemporaneous speech by an important statesman blazes provocatively within an hour in headlines in every part of the world or penetrates our private homes over the radio, undigested and unmodified by the conciliatory phrases which may have followed five minutes later in the same speech.

That the formation of sound public opinion is, under these circumstances, beset by peculiar dangers is clear. There can be no guardianship for a whole people. There is no tolerable censorship in such matters. Public opinion will form itself on whatever facts it has; sound public opinion cannot be based on less than all the facts.

When public opinion thus becomes the dominant force in the affairs of men, the responsibility on the part of the people for seeing that that opinion shall be sound is immeasurably important. The obvious answer to this danger is that democracy, realizing its power, must learn to use it responsibly.

EDUCATION IN WORLD-MINDEDNESS

In "Little Dorrit," Dickens illustrates the point by telling us of Tattycorum, a little serving maid with an impulsive temper and an explosive tongue. Her wise employer, whenever he saw her about to break out, always said to her quietly "count five and twenty, Tattycorum," with the result that when five and twenty had been deliberately counted, the passion had evaporated. We should acquire the international habit of "counting five and twenty." The statesmen have set up the machinery and the people are taking over its operation, or, at least, its successful operation depends upon an approving consent of the people.

Education in the facts of our modern international life and culture in a broad and tolerant and unselfish spirit is necessary to make life under modern conditions possible, and comprises the discipline to which we, as citizens, must subject ourselves. This may sound like a long road, but it is the only safe road. Each international incident as it arises becomes an educational opportunity when it is approached in this spirit. Conferences for the limitation of naval armament, for instance, have none of them really gone to the root of the matter of the folly and danger of competitive building, but they have served an immense educational purpose.

The great disarmament conference to be held next year will meet in a sounder atmosphere, and the delegates who attend it will be braver because of the difficulties and failures which have gone before. The strong likelihood is that by the time the disarmament conference comes every delegate there will have learned from the people of his country that the public have little patience with technical difficulties and excuses, thinly disguising nationalistic pretensions. The

public opinion of the world will welcome and support those bold spirits who, when that conference meets, proclaim as its guiding principle that the way to disarm is to disarm.

I have noted that the program of this institute proposes for discussion both political and economic questions. On the economic side, the problem presented is whether under modern conditions world economics can be permitted to develop without a plan. In large part this thought derives from the so-called Five-Year Plan which Russia has promulgated and widely advertised.

Varying opinions are still possible about the success of the October revolution in Russia. That it has managed to survive may be due to a combination of any number of a dozen causes which have little to do with its soundness as an economic or political philosophy. That it has not yet produced an economic millennium is no more an indictment of it than a like failure of capitalism, which still has its storms and stresses, its tale of waste and human derelicts. At the present moment it is difficult to tell what the Russian situation is or what it is becoming.

RUSSIA VIEWED AS ONLY "CATCHING UP"

The recent announcement from Moscow that it is necessary to establish a difference between the reward for skilled work, well done, and unskilled work, slovenly done, has a familiar sound to those who have clung to some form of capitalistic organization in the belief that under all conditions individual initiative must be preserved and virtue permitted to win its own award.

But Russia has asked the rest of the world several disconcerting, if not destructive questions, which it may be that she herself has not yet satisfactorily answered, but which challenge us to try to answer them about our own situation.

At the outset it is important to point out that any analogy between the Russian Five-Year Plan and a possible plan for the world economic progress is misleading. Russia is planning to catch up. The rest of the nations of the world are considering the possibility of planning to go forward.

Russia, as an economically and industrially backward nation, is planning to attain the sort of productive competence already attained by others, but for an already great industrial nation to plan its future development is a very different thing, and whether there can be wisdom enough to plan an economic future for the United States or for the world seems very doubtful indeed.

History gives us some examples in the past of what Russia is doing today. They are unlabeled and unadvertised, but they are real parallels. After the industrial age had established itself in Great Britain and much of the cost and experience of developing machine production had been borne, Germany determined to become an industrial nation and did it by importing machinery, practices and methods from England, thus making the starting point of her own technical development the proved results of British experiments and experience.

An even more striking illustration is afforded by the case of Japan, an entirely alien nation with none of the industrial traditions with which even Germany started. By taking over the best that had been developed in England, Germany and the United States, the Japanese built a technology and became an industrial nation in an incredibly short space of time.

In neither of these instances was there a Five-Year Plan or an announced or advertised program, but the thing was essentially the same as that which Russia is now doing with its installation of hydro-electric power, its introduction of Ford plants and its adoption of the most up-to-date agricultural and industrial machinery and practices.

All three of the incidents are imitative and in each case the start is made under the most favorable auspices, for the countries which have developed the new techniques are left with all of the costs and burdens of development as clogs upon their industry, while the new entrant into the industrial field escapes the griefs and burdens of experimentation and development and makes its starting point the best that its competitors have been able to do, unencumbered by the history of their efforts.

The exercise by Russia of a tyrannous political control as a means of subjecting the Russian people to the sacrifices necessary to achieve quickly the industrial competence of the western world is obviously only a temporary and transitory phenomenon. The inefficiency of slave labor is an axiom, and whether the servitude be imposed by a whip or a dogma will not change the great truth that no form of social organization can endure, or is indeed worth seeking, which does not leave room for the individual man.

WORLD ECONOMIC PLANNING AND PROGRESS

The problem of world economic planning is, however, as I have said, an entirely different thing. Economic progress in the past has been an evolution—the cut and try method has been its characteristic. In industry and economics as in the world of more abstract ideas, the daring have pushed up against the wall of the unachieved, finding either a soft spot which it was possible to break through to greater progress, or a hard and unyielding place from which it was necessary to recoil for efforts in other directions. It has been found impossible, so far, to make any coherent and promising plan for the organization of some of our own domestic industries of a fundamental kind.

For instance, neither England nor the United States has been able to organize the coal industry, or to make any plan for organizing it, which gives the slightest promise of placing this most fundamental industrial occupation upon a sound economic basis, either as to production or consumption, or to introduce into it either stability for its owners or dignified and adequate lives for its workers.

Industrial progress is made by the development of new things, but new things upset the equilibrium of any plan. Who could have planned the industrial effects of the development of the railroads, or the economic changes which we have seen attend the development of the internal combustion engine? Obviously, unless we are prepared to put world economics in a strait-jacket, and, like the encyclopedists, write its full history on the theory that further progress is

impossible, no such plan could be made for nations which are forging ahead as is entirely rational for nations which are still catching up.

This, however, does not mean that the world must sit still and take what comes from an unstudied and unregulated play of economic and industrial forces. The experience of the race, which is a sounder reliance than the wisdom of any generation, has shown us that progress is a function of freedom.

While we may not definitely plan the direction or speed of progress, we can cooperate in efforts to *establish those conditions of freedom under which progress is possible.* Of these conditions I shall, for a moment, ask your attention to but two.

WILL OF PEOPLE AS ARMS PARLEY FACTOR

The first and most essential is, of course, the effective establishment of peace in international relations. All progress is an illusion if there impends over it the possibility of the disaster of world war. Even so vast and intricate and beautiful a thing as civilization can commit suicide like an individual. Modern war is a loaded pistol, aimed at the heart of civilization itself with its hair-trigger held by an unsteady hand. The approaching disarmament conference will probably show us whether the size and destructive power of that pistol is to be increased or decreased, or the hand rendered more unsteady.

Curiously enough, the controlling voices at that conference will be the voices of the great nations which have armed on the theory of offensive preponderance as a defensive measure, but the question to be decided by the conference is not whether this or that nation, by obstinate insistence upon momentary military strength can achieve, at the expense of traditional enemies, some territorial or economic advantage, but rather whether the pride and obstinacy of some particular nations will force the world to live in a powder magazine until the final explosion sweeps away the strong and the weak alike.

The hope of the disarmament conference lies not in the

statesmen of the world but in the peoples of the world and the strength of the peoples of the world at that conference depends not upon the knowledge or good-will of a few elect and thoughtful spirits, but in the extent to which popular knowledge is thorough and deep and so fortifies the representatives of the people with the support of an informed and resolute public opinion.

Upon the purely economic side I find the other suggestion which I desire to bring to your attention. One of the astonishing consequences of the reorganization of Europe by the Treaty of Versailles has been the growth of barrier tariffs. The nations of pre-war Europe were organized in a measure at least on the theory of an identity of economic interest modified by dynastic aspirations. At Versailles, the principle of nationalities was substituted, with the consequence that the freshly emancipated peoples were launched as nations with the double duty of establishing new political institutions and new economic policies.

That an extreme nationalistic turn should have been given to both of these tasks is not strange but the results are obviously unfortunate. The old ties and dependencies were gone. To have attempted to reestablish them and keep them separate from political implications would have been too great a task, even had the wisdom of the moment been enough to permit its importance to be seen.

TARIFF BARRIERS TERMED "ENCUMBRANCES"

I shall not go into any statistical illustration of just what has been done. It is fair to say that barrier tariffs have been erected on every new frontier and many of them are provocative, some of them frankly hostile, and all of them an encumbrance upon that field of freedom in which progress and peace can best function.

The spirit in which many of these tariffs have been enacted has been the war spirit, and while it is too much to hope that there can be any immediate economic counterpart to the Briand-Kellogg Pact, by which the nations will agree not to use the tariff as an instrument of national policy, it is yet

clear that we cannot go on declaring economic war upon each other, ruthlessly wrecking each other's industries, and disorganizing each other's economic systems, without ultimately producing the kind of friction out of which many of the wars of the past have been generated.

This is admittedly a difficult and refractory subject, and any approach to it must take cognizance of the fact that the existing social and economic organization of each nation is a status, to some extent artificially attained through years of reliance upon national economic policies. To ask a sudden reversal of these policies, or any drastic change in them, would entail more domestic disorganization than nations are willing to confront.

Many nations, including the United States, may find, as a result of the present economic depression, that stimulation of their own foreign trade would be furthered by reducing their tariffs, but from an international point of view we cannot afford to wait upon a process so sporadic and gradual as this is for it depends upon, practically, the re-education in every country of the whole body of public opinion which has been committed to the use of tariffs as a legitimate expression of nationalism in economic competition.

Plainly, such re-educations in each country, from its own domestic point of view, ought to be encouraged and there seems little doubt that they will be undertaken. But the world as a whole needs a plan of gradual contemporaneous emancipation from the past, a method which will tend to preserve, relatively, the economic conditions and reliances of the several nations, but which will bring about, over a long period of years, an approach to freedom if not equality of economic opportunity.

In my judgment this method cannot be sought by conferences dealing with items in tariff schedules. The confusion incident to a general tariff revision in any country is sufficiently discouraging, but simultaneous general tariff revision in all countries, even if they were attempted in conformity with some general principles arrived at by international conference, is unthinkable.

FOR GRADUAL INTERNATIONAL ADJUSTMENT

Each country would have its own legislative action the outcome of legislative action in every other country where its export interests were substantial.

It would be difficult to arrive, by any general consensus, upon the fundamental principles of tariff making. The separate schedules are often of interest to a relatively small number of countries and of no general interest, and the confusion of attempting to work out these special interests by contemporaneous legislative provisions makes the whole problem unapproachable by that method.

Another difficulty would arise from the fact that such a plan contemplates a day when all this harmonized legislation would come into effect. That is a day at which and from which practically the entire economic structure of the world would start on a new basis. Perhaps it is enough to say that things are not done that way and cannot be.

But it is still possible to suggest a plan of gradual approach. We once had a tariff in the United States which provided for a gradual reduction to a maximum of 20 per cent by annual horizontal reductions in all schedules containing, as originally enacted, a duty in excess of that amount. This seems to me to hold out a very practical suggestion.

An international conference could assume that the present status of the tariff legislation of each country represents its present policy relative to all other nations with which it sustains trade relations. Such a conference could recommend, for general adoption, legislation in all countries, making horizontal reductions in all schedules, to go into effect simultaneously, at definite rates over periods of years, calculated to permit the effect of the reduction to be absorbed by domestic readjustments.

This would preserve the relative situation of all countries. It would meet the national prejudice against unilateral economic disarmament. It could be done much more rapidly than by any other process because no country would be put in any changed relative relation to other countries,

and all countries would know in advance the extent and rate of change and so be able to busy themselves to meet the changes as they went into effect.

The final advantage of this plan seems to me to lie in the fact that it does not subject the tariff policy of any nation to international control which would run counter to the insuperable obstacles of that national feeling which has, in every country, always insisted that tariff making is a domestic question.

I do not speak as an economist and, in the life of a busy practicing lawyer, I obviously have not the time to devote to the study and the acquiring of expert training necessary to entitle one to speak with authority about this question.

OPPOSED TO REVOLUTIONARY CHANGE

Political institutions, it seems to me, cannot be wisely subjected to sudden and revolutionary change. We cannot tear ourselves loose from our history and adopt unfamiliar and exotic political arrangements merely because they have been found congenial to other peoples and better adapted to their situations and needs.

We can, however, modify our political arrangements to facilitate our economic development and that process has gone on continuously in our own country and in every other country with a modern civilization. In like manner we can modify our economic systems and bring them more into harmony with the theories upon which in this new age our political institutions are based.

Our own capitalistic system obviously needs modification. The alternations to which we are at present subjected, between periods of surfeit and periods of widespread unemployment and want, subject the life of people who do the world's work to hardship and hazard, inconsistent with the demands of a stable social order and too cruel in its effects to be patiently accepted.

On the other hand, to fly from what we have to a system which has so far resulted in a mere hope of an ultimate economic competence, by a drastic subjection of the people

to a system of compulsory and uncompensated servitude invites social instability from another cause. There is room in the world for many political systems, there is room in the world for many economic theories.

Historical, geographical, and racial differences among men are too great to permit it to be supposed that any one set of political institutions or one set of economic theories could be equally serviceable among them all.

This does not mean a supine acceptance of events as they may happen nor does it mean a narrow and restricted view of either the functions or possibilities of government under modern conditions.

In a simpler age, there grew up the doctrine of laissez faire as an expression of a view that if the government would but keep its hands off, individual initiative and vigor would achieve the best results. And it is still possible to believe in less government rather than more government as the answer for many of our ills.

But we must not blind ourselves to the fact that the increasing intricacy of human relations necessitates increasing accommodations and concessions and that this is just as true of nations in the international network as it is of individuals in the domestic social fabric. There are large areas of new relations, or old relations expanded into new importance and meaning, as to which conscious regulation is the effective answer.

As to international things, the world has certainly entered the cooperative age and the progress and future welfare of the world is to be sought in matters of high common concern by consultation, agreement, and cooperative efforts. There is, however, a vast difference between cooperation and coalescence.

NEW COOPERATIVE SPIRIT AND TECHNIQUE

In the domestic society there must be room for the individual man, and in international society, there must be room for the individual nation.

Some part of our national feeling may be amour propre,

but when all allowances are made, there remains such a thing as national culture, a kind of culture that cannot as yet be attained without the stimulation of national feeling, and which has great mental and spiritual and physical gifts to contribute to the world's progress.

A rough statement of the ideal at which we ought to aim is, therefore, cooperating individuals in a series of domestic societies which themselves remain individual but cooperate about their common concerns.

That I have selected only two illustrations of the world's present need of cooperative activity does not mean that there are not countless others of greater or less concern. The two I have used, however, are obviously dominant in the respective fields of politics and economics, and the spirit in which I have sought to approach them seems to me a spirit in which our common lesser problems may be hopefully approached.

Our planning should seek to establish the reign of justice in the interrelations of independent peoples and to free their economic efforts from restraints and obstacles imposed in the spirit of conquest, which, in the modern world, would naturally be in the economic field.

I have not attempted to catalogue all the social ills and problems which need consideration, but I have attempted to produce the reflections of a man in the street and to summarize for the information of experts the state of education and determination to which public opinion seems to me to have arrived.

The gravity of the problems which we face needs no emphasis. The tragedy of failure in their solution is sufficiently illustrated by the recent economic and political history of Europe and America.

That a new spirit has come in matters of international concern, and in the new technique which has been evolved for the consideration of international problems, whether economic or political, is the point I try to make, and in it I find immense stimulation and encouragement.

The world has been rocked in a great storm and even yet

the winds and the floods have not abated. Modern civilization is worth preserving, hence the essential soundness of the craft in which we are embarked has been demonstrated.

Some strong hands have been discovered to be at the wheel, and, in the darkness, some lights are already appearing, which seems to indicate that at the end of a great striving we may hope for safe port.

NEWTON D. BAKER,
Cleveland, Ohio.

Examinations in the University of Life[1]

IT IS my privilege today, in the absence of Dr. Sykes, to confer upon you the degrees to which you are severally entitled. I congratulate you on your accomplishment. It means that the college has examined you and found you worthy. Now you are going out into the world to be examined by it. Some of you have taken a partial examination there already. In college you may have had good luck or bad luck in your examinations. Sometimes the questions hit upon the field exactly in which you were best prepared. Sometimes your mind was working at its best. At other times, you were less fortunate. The examinations with an ingenious deviltry seemed to hit upon the things you did not know. In some degree, the examinations which the world will make of you will be the same. Sometimes opportunities will come to you to display great strength and find you qualified to do it. Sometimes the world will call upon you with confidence, and you will disappoint both it and yourselves. The only difference between your college examination and the world's examination is that the world subjects you to a continuing examination and the dates set for it are not determined in advance. It comes at most unexpected times and in unlooked for situations. Frequently, you do not even know that the examination is going on, and yet it may be a very critical moment in your career. The very continuity of examination guards against error in results. You have an opportunity to correct your bad examinations, and you take the risk of impairing the good ones. By and large, it is fair to say that the world's judgment will be correct. You will not get by permanently with lucky questions. You will not fail with a few unlucky ones.

May I suggest this morning that you subject yourself to another examination. It is the most vital and important

[1] Address at the commencement exercises of the Summer School of St. Lawrence University, August 14, 1931.

one of all. It must be more searching than any other. Your answers must be more full and frank. The results of this examination must be taken more seriously. In a word, I suggest that you examine yourself. Perhaps you can afford to fool others about yourself, but you can not afford to fool yourself about yourself. The purpose of the examination is to discover your own strength and weakness. Perhaps I can help you in this self-examination. Will each of you put to yourself five questions, and having discovered your strength or weakness, will you then go on with the great business of developing yourselves. Truly, this is the commencement and not the end of your educational career. These are the questions.

First. Have you enlarged your knowledge of obligations and increased your capacity to perform them?
Second. Have you developed your intuitions and made more sensitive your emotions?
Third. Have you discovered your mental aptitude?
Fourth. Have you learned enough about the machinery of society and its history to enable you to apply your gifts effectively?
Fifth. Have you acquired adequate skill in communication with others?

Satisfactory results from this self-examination are essential to your success. You cannot fail on any item. However, if one be more important than another, I think they are stated in the order of their importance. Perhaps if I expand the questions, they may be more searching in their inquiry and the answers may be more satisfying to yourselves.

Failure on the first question means failure altogether. If you have not developed your understanding and sense of obligation and your capacity to perform, then your intuitions, no matter how sensitive, your aptitudes, no matter how marked, your knowledge of institutions, no matter how thorough, your language, no matter how adequate, will not save you from failure. You may appear for a time to succeed with only the last four, but in the end,

you will fail without the first. On the first question I shall speak last.

You may be surprised that the development of intuitions is put second in the list. I mean by it that whole area of subconscious or superconscious activity which underlies or overlies our ordinary mental machinery. Its usefulness depends upon its exercise. A college course tends to exalt the mere operations of the conscious mind, and so, in some degree, to discourage the use of one's intuitions. Has that been the result with you? If it has, I would endeavor to develop those thousand and one antennae which unconsciously absorb, especially in your contacts with other human beings, impressions of which the mind either cannot take account or comprehends all too slowly. Sensitiveness outside of the field of the mental operation is a magnificent substratum, especially when joined with character, on which to build the structure of a developed mind. So I put this area of what I call intuitions, perhaps not properly so, as second in importance in your list. You will find this examination difficult. You will find your deficiencies hard to repair, but exercise, constant exercise of your faculties in this subconscious field will yield you much. Then, too, I class the cultivation of the emotions with intuitions. They work together. Have your emotions been deadened by too much mathematics and science? Have scientific methods in history and elsewhere impaired them? The discovery of insulin only a decade ago is an historical and scientific fact, but it is more. Are one million people alive today, useful to themselves and to society, loved by their associates and friends, as a result of the discovery? Will fifteen million people soon owe their lives to it? If wars which destroy millions may be glorified by our emotions, perhaps we may think of insulin which saves, as more than a mere cold scientific fact. Examine yourself on your emotional approaches. It will throw your knowledge into better human perspective.

I fear that the college has not paid much attention to these first two questions. I doubt if it has examined you in them, and yet they are of supreme importance to you.

In the third question, you will note that I put the emphasis on discovery. Have you discovered your mental aptitude? Have you been engaged in that most important job of research, more important to you than all the research of the world, the discovery of what you really want to do, and what you are best fitted to do? Here, again, you must be objective in your examination. The fashion of the time, the acquisition of wealth, the glamour of superficial success, all stand as temptations for you to try to do something that you are not fitted to do. The misplacement of human beings is one of the greatest tragedies. Young people frequently start out quite aimlessly. They either drift from one place to another, or, having taken a place unsuited to them, have not initiative or courage enough to lift themselves out of it. The years go by, and in the minor jobs, they do the work well enough perhaps to get some progressive increase in earnings. Each year makes it more difficult for them to move, and one day they awake up to the realization that there is nothing ahead for them in the line into which they have drifted, and they are then too old to be accepted in another. This, as I have said, is one of the greatest tragedies of modern life. Be careful not to misplace yourselves. Be on the guard always against letting yourself drift into occupations for which you are not fitted. You must discover your own aptitudes—you must pilot your own ship. If you fail to plot your course, or, knowing it, carelessly take your hand off the wheel, you will merely drift at the peril of the waves, and one day you will be wrecked and cast ashore. Do not neglect this discovery of your aptitude, and finding it, do not fail to meet the sacrifices which may be necessary in the beginning to enable you to put it to effective use.

Perhaps the college has not helped you with these first three items. If it has not, it is partly its failure and partly yours. If it has not, you must repair that deficiency now, now before it is too late. The remaining two questions lie strictly in the field of your accepted college work. Have you learned enough of the machinery and history of organized society to enable you effectively to apply your gift, assuming it has been discovered? If it lies in the field

of science, have you learned enough about the fundamentals of mathematics and physics to enable you to go on effectively in the pursuit of your target. Examine yourselves carefully, and if you have not, then repair the weakness and do it now. Remember there is no lucky chance in this self-examination of yours. What you do not know and what you ought to know must insistently stand out to plague you, plague you with red marks, impair your confidence, threaten you with defeat until you have overcome it. Be prompt to recognize the areas of your ignorance and be quick to make your examination in them satisfactory to yourselves.

And now on this matter of communication—the last of the questions which I have put to you—the least important in the order of statement, and yet without which it will be difficult for you to succeed, even though you have all the other four. At best, one can communicate to others only a very small percentage of what he thinks or sees or feels. Language is inadequate. All languages are inadequate no matter how many of them you may know or how skillful you may be in using them. Perhaps only 1 per cent or 2 per cent, certainly I should think not more than 5 per cent of what one thinks or sees or feels can be translated by language to another. As one enlarges his capacity to make himself understood, as one enlarges the ability of others to understand him, he opens up to that extent his opportunity for usefulness. Certainly in our modern society, where it is necessary for men even in the simplest matters to cooperate with each other, it is necessary for them first of all to understand each other. Language is the principal conveyor of understanding, and so we must learn to use it, not crudely but discriminatingly. I have discovered after a long experience that misunderstandings arise between men largely because of the failure of adequate expression. Be careful to see that your language is clear. Words must be accurately used. Sentences must be short—then add style if you can. It is only half enough to have the

transmitter work clearly and accurately. The other half lies with the receiver, and style, if it be compelling enough, is the sure way to make the receiver function well.

And now I come back to my first question: *Have you enlarged your knowledge of obligations and your capacity to perform them?*

I have grave doubts whether the college has helped you as much as it should on this all important question. It seems to be assumed that somehow young people will discover their obligations for themselves. Perhaps it is assumed that the whole college course is directed to this end without being specific about it. Perhaps it is assumed that the church will do it. Perhaps it is thought wiser to leave it to discovery by experience. Whatever the explanation may be, I am satisfied that the colleges are not performing well or adequately in this important field. Young men and women go out of college without any very clear conception of their obligations or of the importance of their performance. There should be a whole course on this in every college—not a course of sermons made up of age-old platitudes, but of researches in specific fields. For example, what are the obligations of a citizen in our modern democracy? Our governments are constantly being faced with more and more complicated questions. Our political representatives have to act upon them. Public opinion has to function on them. What part must you undertake in understanding your obligations and fulfilling them? Today, we are faced in this country with a larger number of vital problems than has ever been presented to one nation. We have serious domestic problems. We have important foreign ones. Many of them must be answered and answered soon. You must help. Are you prepared? Have these problems been segregated in your mind and studied, even the most important of them? Do you feel confident that you can perform reasonably well your obligations as a citizen in answering them? If your college has not helped you with that research, you must help yourself. Suppose

we be more specific. America is now the great creditor nation of the world. It has something more to do than merely to pay its debts. It is a trustee of forty per cent of the world's gold supply and has great reservoirs of credit. How shall it be used for the benefit of our own people? How shall it be used so as to create and maintain stability in the world's exchanges so that this interdependent economic life of all the people of all nations, may go on more prosperously? How much do you know about credit and currency? What will you do as an educated citizen on a problem of this kind? The question is raised and is bound to be discussed again, as it has been before, whether silver is to be established on some fixed parity with gold as a monetary metal. When that issue was before us last, it was largely a domestic question. Now, because of the relationship of America to the world, it becomes an international one. Your political representatives may be called upon to act. Public opinion may be required to function. In a democracy, you must act. You have that obligation —how will you perform it? Then again, shall we have a managed currency not based on the supply of one commodity like gold, but expanding and contracting by the exercise of human judgment so as to maintain something like a stable price level on all commodities? That question is being discussed in many countries and will be talked about more. Political representatives may be called upon to act. What is your obligation? How will you perform it? So much as an illustration of some obligations, remote perhaps, but nevertheless important to citizenship.

Now what about the sanctity of obligations and the importance of their punctual performance. That lies back of our whole system of credit and currency. Gold is only a partial cover, perhaps less than 10 per cent, of the outstanding currencies and credits. What is back of the other 90 per cent? Economists may tell us that it is commodities in process or in movement. I tell you that it is promises of men. Promises which must be sacred, and promises

which must be punctually performed if credits and currencies are to be good. Let me advise you. Any obligation which you make—perform it. If it be for money—pay it. If you can not pay it—renew it, but never neglect it and never default on it. Your credit, not for money alone, but for good faith, depends upon it. The credit of the nation, the value of our currency, the conduct of business, our very living, depend upon the sanctity of public and private obligations.

Let us speak of public obligations for a moment. Political parties throughout the world have a more or less prevalent habit of treating lightly the obligations which may have been entered into by their government. That exists to some degree in all countries. It ranges all the way from polite questioning to threats of repudiation. Whether a person or a country should undertake obligations is debatable. Whether they should perform them, once undertaken, is not. If they are impossible of performance, they should be revised, but they should never be defaulted.

Perhaps I have said enough to indicate to you what I mean by an understanding of obligations and your ability to perform. Please remember that loyalty to them is the basic obligation of all citizens in a civilized society.

I commend to you an examination of what your obligations are in this modern world and a continuing study of how you intend to perform them. Democracies will fail unless you do. The political liberty of the individual will be diminished from necessity unless you do. Dictators will arise to perform your responsibilities, and having performed them, they will take their full toll from your liberties. Our colleges are in default in this great field of research and instruction. No diplomas should be granted until men and women know something more about the area of their obligations in life and something more about their duty in their performance.

Ladies and gentlemen, make no mistake about this examination of yours. It is difficult, I know, far more dif-

ficult than any you have ever faced. You may shirk giving it to yourself. The world will not shirk giving it to you. So I suggest that you be prepared, and I hope as a result of your efforts, the great univeristy of life will confer upon you ultimately a satisfactory degree.

OWEN D. YOUNG,
New York City.

What Action Is of Most Worth?[1]

SUBSTANTIAL advance in natural science began when men stopped merely speculating on why things behave as they do and began to record what things do and to determine how to measure their action. For example, Aristotle reasoned thus: Why does the stone, when liberated from the hand, fall to earth? Because the earth is the proper place for heavy things. The stone is heavy. Therefore, when it falls, it merely seeks its proper place. This enlightening reasoning produced some scholastic sophistication among medieval schoolmen, but it is difficult to discover that any constructive consequences followed in making the world a better place in which to live.

By contrast, Galileo did not fool himself by asking Why? He centered attention rather on two very different questions, namely: Under given conditions, what does the stone do? How appraise its action? From general observation he answered the first: A stone when dropped falls vertically downward with increasing speed. This accurately describes the action. By experiment he proved that size, shape and chemical composition do not affect the action and that measurement of the distances traversed in successive equal units of time yields data that enable one to appraise the action in ways that lead to important consequences.

From this beginning, Newton developed his law of universal gravitation and his laws of motion. Out of these there evolved a science of mechanics which has been a powerful instrument in our conquest of nature.

The case of the falling stone is extremely simple, because all stones, and in fact all material bodies, do the same thing when dropped. In most other cases, different materials act differently under given conditions, as for example, copper, iron, wood, glass, water, or air, when placed in an electric circuit. But in every case, however complex, the funda-

[1] Presented at the Conference on University Training for the National Service, the University of Minnesota, July 15, 1931.

mental intellectual procedure is the same. Scientists always seek first to answer the two questions: Under given conditions, what does it do? and, How appraise its action?

By seeking answers to these two questions and by building on the data thus secured, we have subdued material Nature. But our increased physical comfort has intensified the perplexities of human relationships. We find ourselves fighting on an unsubdued social frontier, struggling with outworn techniques to create a social order that reveals an intelligence comparable with that shown in our material achievements. Under these conditions it seems reasonable to ask what would happen in social matters if we should quit bothering so much about why men behave as they do, and focus attention on what they do and how their actions may be appropriately appraised.

In considering this question it is important to note at the outset that mankind has always followed this scientific procedure to some extent in practical matters. Centuries before either Galileo or Aristotle were born, men built houses, grew crops, raised cattle, invented tools, used fire, and cooked food. To do all this required close observation of what things do and constructive appraisals of their actions. What Galileo and Bacon did was to elevate this common mode of dealing with material things to the dignity of philosophic inquiry. They started it on the road to academic respectability by pointing out the way to make more accurate and more comparable observations, more systematic studies, and more reliable generalizations. Similarly in the field of human action, men always have and still do judge each other by observing and appraising one another's actions. In this field, as in the field of natural phenomena, the problem is to increase the precision and the validity of this native practice in ways that lead to constructive social consequences.

During the late war an experiment was started that is proving a significant help in the solution of this problem. It began by making what are called job specifications. These were found necessary as guides in selecting, training, and placing recruits as technical specialists in the military

service. Each of these job specifications is a series of statements describing the characteristic things a man does when he works successfully at a particular job. They are made by securing from each of a number of experts on each job his own description of the significant features of what he does, and then compiling these individual statements into a consistent whole which all agree accurately describes the critical features of the mechanics of the job. This answers the first of the two basic scientific questions. It tells what a man does under given conditions.

To answer the second question, each expert describes what he considers to be appropriate criteria for appraising the significance of the action. These individual judgments are then compiled into a composite judgment which indicates how quality of performance may be fairly appraised in ways that lead to useful consequences. During the war the chief useful consequence on which attention was focused was technical proficiency. It was then essential to have the mechanics of the job done with speed and accuracy regardless of social significance. Since the war, attention has reverted to the social significance of action. Hence the experiments with job specifications have been directed more and more toward discovering how to include criteria for appraising the human values involved along with specification of the mechanics of the job and criteria for appraising technical proficiency. Such expanded job specifications are called records of usage or criteria of achievement.

It will be noted that, because Nature's actions are expressed wholly through matter, an isolated individual, like Galileo, may, by lone study and experiment, discover the critical factors of natural phenomena and invent appropriate methods of appraising them. But when the social significance of human action is to be evaluated, composite judgments of competent witnesses are used to determine both the significant features of action and the criteria by which to appraise its quality. Such criteria will change as human aspirations change. But when such significant features and criteria have been appropriately determined, objective

records, tests, and rating scales, constructed to portray and evaluate performance in terms of those significant features and criteria, may be effectively used to appraise human action objectively in ways that will be of social value.

By way of example of the results thus far achieved, I submit the following sample statements taken from criteria of achievement prepared in cooperation with the American Council on Education by various Government Departments for their own use in helping select better candidates for employment and in stimulating employees to do a better job. The complete statement contains some twenty or thirty such statements, each describing one characteristic action of a particular position, and giving the criteria by which, according to the composite judgment of competent observers, the quality of performance may be appropriately appraised. The following single statements are presented as samples of technique:

> A COUNTY AGRICULTURAL AGENT, in cooperation with local leaders, selects demonstrators and assists them in conducting on their own farms such effective demonstrations that the farmers of the county adopt the methods demonstrated as necessary practices for successful farming.

This statement first describes accurately one particular feature of what the county agent does, and then gives a composite judgment as to how to appraise objectively the excellence of his performance; namely, by counting the number of farmers who do and the number who do not adopt the methods thus demonstrated. This rating is wholly objective. It defines a result that is socially significant. Yet it does not standardize performance or place any limitations on individual initiative or ingenuity. Rather it defines one particular goal in terms of results achievable, and this challenges each agent to do his utmost to make the best possible score. The dozen or more such goals defined in the criteria of achievement specify both technical and social objectives of the work. The ratings based thereon give a reliable ap-

praisal of both technical and social aspects of human action.

The second example is taken from the record of usage for the Chief of the Finance Division in the Customs Service in the Department of the Treasury:

> THE CHIEF OF THE FINANCE DIVISION IN THE CUSTOMS SERVICE adapts all the methods and procedures for which he is responsible to the varying conditions of different ports and districts, to changed laws, and to fluctuating requirements of foreign trade in a manner that gives public satisfaction.

In this case the criterion for appraising the action, while objective, is less tangibly so than is that just given for the county agricultural agent. A poll of satisfied and of dissatisfied people gives a first approximation in terms of present naive conceptions of public service. The specification of this result as a criterion of achievement, however, stimulates the finance officer to strive to increase public satisfaction. As he improves the technical and the social aspects of the service, standards of public satisfaction rise. Gradually more searching criteria for appraising public satisfaction are developed, bringing in their wake further perfection of technical operations with corresponding socially useful consequences.

As a third sample, consider the following statement from the record of usage of the Foreign Service Officer, as printed in the official pamphlet on the American Foreign Service issued by the Department of State:

> THE FOREIGN SERVICE OFFICER analyzes and reports on foreign political and economic conditions and trends of significance to the United States.

In this case the criterion for appraising action, namely, "of significance to the United States" is rather vague. Nevertheless, it can be used to secure a fairly objective appraisal of performance by counting how many government officials and others immediately concerned are satisfied with the reports and how many are not. This is present practice.

But the mere presence of this criterion in the record of usage keeps the foreign service officer and others alive to the very vital question as to which political and economic conditions abroad are of significance to the United States and which are not. This stimulates continuing analysis of this question and results in steady improvement of reports in both their technical and their social significance. More rational and sympathetic international understanding is thus developed.

That significant social consequences result from following this simple and direct scientific procedure in the study of human relations is already apparent. Representatives of the government departments can testify as to its value both in helping them make a better selection of candidates for employment and in stimulating employees to fuller achievement because they are given objective standards by which both technical and human values in performance may be recognized and rewarded. The results thus far clearly warrant further development of the technique if for no other reason, then merely as an instrument for helping men find work they can do best. This promotes realization of the great American aspiration to give every man his utmost chance.

For the schools, too, this method of recording and appraising human action has significant consequences. For when such records of usage and criteria of achievement are used as guides for training and for appraising proficiency, it is necessary to transfer emphasis both in planning curricula and in testing progress from "knowledge" to "action." You are well aware of the continuous struggles of curriculum makers and of examination boards to answer Herbert Spencer's question: "What knowledge is of most worth?" If not, you should read David Snedden's article in School and Society for June 14. You should then be convinced that the Spencerian enigma is unanswerable in general. No omniscient group, not even a group of pedagogues, can ever hope to answer it in a manner that will make mass schooling of most worth to everyone.

Incidentally, this transfer of emphasis from "knowledge"

to "action" also removes a fundamental logical fallacy from the theory of education. For "knowledge" is not the purpose, objective, or end of schooling. Sensible conduct or constructive action is. Knowledge is instrumental,—a means. Therefore, to treat knowledge as an end is to fall into one of the subtlest and most confusing of logical fallacies, —to substitute the means for the end. For purposes of curriculum and test making, at least, we better give up trying to answer Spencer's question and concentrate on determining what action is of most worth. Properly constructed records of usage and criteria of achievement do just that.

At first flush this proposal may seem more hopeless that is our Quixotic effort to determine in general what knowledge is of most worth. This is, however, not the case. Every year human knowledge is increasing in mass and growing in intricacy. The difficulty of determining what knowledge is of most worth, already insurmountable, is becoming more insurmountable every year. In the field of action, however, scientists are piling up evidence that all our varied performances may be permutations and combinations of relatively few types or modes of action. Spearman's analyses in his recent book, "Creative Mind," are interesting suggestions along this line. The results of Truman Kelly's study, "Crossroads in the Mind of Man," point in the same direction. Proper records of significant action and of criteria for their appropriate appraisal furnish basic data essential to the ultimate discovery of common modes of action.

Some years ago Dr. Grenfell needed a construction engineer to build and operate an electric lighting system in Labrador. He could not find an American who was willing to live permanently in Labrador and no native of that place was competent to do the job. He appealed to Pratt Institute. The director at that time, Mr. A. L. Williston, believed that the particular combination of skills in observation, of habits of reasoning and of making judgments,—in short, the particular combination of mental modes of action, that brings success in dog-sled driving is very similar to that which brings success in electrical engineering. He invited Dr. Grenfell to

send the best dog-sled driver in Labrador to Pratt Institute for a year to be trained. This was done. When the dog-sled driver returned, he installed the electric plant and trained other natives to operate it. Being a master of the critical modes of action required, he secured in short order the specific knowledge and the techniques needed to do the job.

Everyone recalls many individual cases in which men have changed easily from one occupation to another apparently different without impairing their efficiency. Many of our college presidents were clergymen or men of affairs. College professors have become successful business men. Men from all walks in life were quickly converted into effective army officers during the war. Such cases as these indicate a versatility in human beings and this suggests that human abilities are not in general highly specialized but that basic modes of action are common factors in large areas of human behavior. If so, the highest function of schooling is to make each individual master of the socially useful modes of action that are indigenous to him. When his native capacities are thus disciplined, he can use them skillfully and usefully in any one of a considerable range of apparently different occupations. The specific knowledge required for a specific occupation can be secured when needed.

Another example may emphasize the advantages of substituting action for knowledge as the basis of school programs. For years schoolmen have talked much about training for leadership. In a democracy like ours, every man may be a leader some time, in some particular group, or in some particular occupation. Thus in a college class, one man is leader in scholarship; another is captain of the foot-ball team; another, leader of the glee club; another, manager of the college paper. When the President of the United States is ill, he follows the instructions of a physician. When your automobile refuses to run, you follow the instructions of a skilled auto mechanic. Each of us is alternately a leader in something and a follower in many things. If we try to dis-

cover what knowledge is of most worth to leadership for all of us, we are in a hopeless mess.

On the other hand, there are obviously significant features of action and criteria of achievement that are characteristic of all leaders. These common features and criteria have not yet been carefully analyzed and defined, but I believe all will agree that every leader presents a vision of achievement that makes others eager to help, assigns to each the job he can do best, coordinates action so that all feel the thrill of team-play, keeps the gang in good humor through thick and thin, takes care that everyone gets a square deal, meets emergencies effectively, and inspires confidence in disaster and courage in defeat. If then we would train for leadership, we must see to it that school tasks give practice in meeting the criteria of achievement by which all leadership is appraised.

This transformation of school work by shifting emphasis from knowledge to action is steadily progressing through wider use of the case system, of project methods, of socialized activities, and of discussion courses. All of these experiments would advance with greater speed and assurance if we had more reliable information about the significant features of action and more profound analyses of these into common modes of action. Such reliable information can be secured, as has just been shown, by applying to human action the same scientific processes that we use so effectively in our conquest of nature; namely, by making records of what men do under given conditions and by devising appropriate criteria of achievement for appraising their action. Such information supplies one sound basis for the profounder analysis into common modes of action.

In the United States some of the features of this scientific method of treating human action have been partially applied in special areas of training. As has been noted, in the pressing practical emergency of the war, job specifications were found necessary as instruments both for quickly training men in the mechanics of jobs and for assigning them to work they

could do best. Out of this experience has evolved a system of vocational training that emphasizes the importance of mechanical skill in finding and holding jobs in the present industrial order. Federal support has been given this system and a vigorous campaign is being waged for its extension. We are told that there are some 20,000,000 young people between the ages of 12 and 25 who have left school without vocational skill and are floundering in no-man's-land trying to earn a living. The present unemployment crisis has added millions of adults to this group. It is claimed that this situation constitutes a national emergency which will not be adequately met until opportunity is provided for every boy, every girl, and every adult worker to acquire or improve vocational efficiency in some selected line at public expense.

In an emergency, like the war or the present depression, such emergency treatment may be expedient, even necessary. And so long as the regular school system continues to permit youth to leave school with no adequate equipment to cope successfully with the mechanics of life, it may be necessary for the public to support a second school system to make up for this deficiency of the first. But while such an arrangement may afford quick and needed material relief, it cannot, when regarded as a long-range policy, be said to exhibit in this area of social life the same grade of intelligence that is exhibited in our mastery of natural phenomena.

The difficulty in this proposal appears to lie in the fact that it recognizes only the material values in the scientific treatment of human action. It builds its system on the records of what men now do to earn a living in this our machine age. It assumes that we must so train men to vocational efficiency in the present industrial order that the mechanics of life will continue to operate as is. And when machines are improved by new inventions, so that they replace hand work and deprive skilled workers of their jobs, then these unemployed workers must be retrained at public expense in the specific skills required for new jobs. Marketable skill is here the significant feature of action. The criterion of achieve-

ment is technical proficiency. Because of the obvious tendency thus to emphasize unduly the material factors in life, the entire scientific approach to the study of human action is rightly regarded with suspicion by all who know that man shall not live by bread alone.

What will happen if this system is expanded to take human values also into account as required by the complete scientific process? We will begin, as has been done, by making careful records of what men do under given conditions. But we will not stop there. Such records portray only the mechanics of life. We will proceed to determine appropriate methods of appraising not only technical proficiency but also the social value of the various actions described. We will, by consensus of competent judgment, define criteria of achievement and standards of performance that enable us to appraise human action not only by material success, but also by social and spiritual values that are implicit in every material transaction involving men. We may then discover and learn how to develop the socially significant common modes of action that distinguish man from beast. Then we will make socially significant action the objective of our schools and use knowledge as the instrumental means which it really is.

In conclusion I will merely state the results that may be realized in time by following the course just outlined. As is well known, the transfer of emphasis in school work from knowledge to action tends to liberate the creative capacities of youth and to develop those habits of action that are adjudged to be of most worth. A child who grows up under this treatment should leave school with good control of the capacities that are indigenous to him. He should be versatile and able to use his abilities effectively in any situation. He will find in the world's work an occupation that gives scope to his capacities and thus brings contentment and recognition from his fellow men. He will be a growing personality who will continue to grow through self-education on the job. He will be self-starting and automotive. He will not need schooling by pedagogues every time he meets new conditions.

He will be always ready to help create a new social order that reveals an intelligence comparable with that shown by our material achievements.

Experience in many individual cases shows that such results are not Utopian. There are now many men and women of the sort described. Our elementary and secondary schools can vastly increase the number of such people if they will. Then we shall begin to understand the divine significance of labor as the source, not alone of economic value, but of all the real values of life. Then we shall begin to achieve that fusion of liberal and practical education which has been the fond aspiration of the American people from the beginning of their pioneer life. Men and women so trained will create themselves as they create the unknown future.

C. R. MANN.

Note. As a sample of the technique of recording significant features of action and criteria of achievement, as advocated in the foregoing article, there is presented herewith the following statement of significant actions and criteria of achievement for the organic chemist and for the county agricultural agent recently prepared respectively by the Bureau of Chemistry and Soils and by the Extension Service of the United States Department of Agriculture in cooperation with the American Council on Education.—ED.

Significant Actions and Criteria of Achievement

ORGANIC CHEMIST

The description of the significant activities of an organic chemist and of the criteria by which the quality of his performance is appraised, as detailed below, does not portray the actual activities of any single chemist, but is a composite picture of the whole body of scientists who come under this caption. Nor is it a catalogue of the activities of any individual chemist at a given stage of his career. Instead it presents the range of what a master chemist does and the criteria he successfully meets as he progressively develops into the finest flower of his profession. For example, all organic chemists perform, at some time, the actions described in the first 9 items and for many these constitute their entire job. If he becomes a research chemist, items 10, 11, 12, 15, 16 and 18 describe the most significant features of his work. For an industrial organic chemist, items 13, 14, 17 and 19 are emphasized, while a teacher must excel in items 16, 17, 18 and 19. Thus each specific job of a particular organic chemist may be properly described by a particular combination of the several items in the list.

1. Secures materials that are most suitable for the particular experiment undertaken.
2. Uses the most effective of the known and tried methods for preparing materials for subsequent treatment whether such treatment be by combustion, distillation, crystallization, or otherwise.
3. Determines mathematically the limits of temperature and of pressure as affecting yields, the speeds of reactions, and other critical factors involved in so far as these can be determined by mathematical equations.
4. Plans and carries forward the desired treatment with proper control of pressure, temperature, etc., and proper consideration for solvents, concentrations, and the presence of catalysts, etc., so that he ob-

tains results with the needed accuracy and with a reasonable speed.

5. Observes critical features of the behaviors of materials during each process, notes the character of side reactions, and draws significant inferences.
6. Follows the course of each reaction and plans each succeeding step so that it forces reactions toward the sought-for ends.
7. Persists in the face of disappointments and discouragements, and endures unpleasant conditions when necessary for success.
8. Checks and records results, eliminates error, and develops other techniques that insure precision in his findings.
9. Maintains an open mind so that he visualizes possibilities in new phenomena or in unexpected results.
10. Analyzes new organic compounds, studies their properties, their reactions, and the composition, structure, and the step-by-step synthesis of their decomposition products, and makes hypotheses concerning possible molecular structures.
11. Selects that hypothesis concerning possible molecular structure which best brings observations and sound theory into accord, traces the necessary consequences of this hypothesis and secures better understanding of the composition and of the synthetic production of the organic compounds under investigation.
12. Develops practical modes of synthesis on the basis of such hypothesis and continues experiments until the desired synthesis is, if possible, accomplished.
13. Searches out and studies new raw materials that may improve quality, lower cost, or be the source of new useful products; improves processes; and discovers new uses for known products and practical uses for new products.
14. Plans and directs commercial production operations, solves engineering difficulties involving human situations and economic principles and conditions, and so carries forward chemical enterprises from raw material to finished product that they achieve the purpose intended.
15. Originates new bases for correlations and predicts new or scientific relationships that lead to continually

improving methods in chemical research and in practical preparation of synthetic compounds.

16. Creates new methods of so expressing and organizing results that they reveal hidden correlations not revealed by the records of others.
17. Plans comprehensive researches and executes them either by himself or with assistants; or if a managing executive, directs manufacturing operations in the light of scientific findings so that yields are commensurate with production costs.
18. Presents the results of his investigations in such perspective with respect to the general literature of chemistry in English and foreign languages and of border-line fields in fundamental sciences of mathematics, physics, physical-chemistry, and biology, in such a manner that they clarify and carry conviction.
19. Marshals facts gleaned from research, study, and experience, in a way that best serves clients, associates, and administrative superiors who may seek his advice; or, when a teacher, in a way that liberates initiative and enthusiasm among his students.

COUNTY AGRICULTURAL AGENT

A. GENERAL ACTIVITIES

I. The nation-wide system of extension work in agriculture and home economics is a cooperative system of rural education which is fostered and maintained by the State Colleges of Agriculture, the U. S. Department of Agriculture, the local County Governing Bodies, and local groups of people. This work is financed almost entirely from public funds and the educational aid is available to all rural people free of charge. Various types of extension workers are employed in this system, including directors, supervisors, state subject-matter specialists, county club agents, county home demonstration agents, and county agricultural agents.

The county agricultural agent:

1. Represents the State Agricultural College and the United States Department of Agriculture in a county often in cooperation with a local extension organiza-

tion; and carries on an educational program that results in larger farm incomes and a more satisfying country life.

2. Acts as an agent of the Federal Government or State agencies in helping the rural people locally in emergencies occasioned by storms, floods, drought, plagues, or insect and animal pests, or in aiding the Government in the emergencies caused by war.
3. Devotes from one fourth to one-half of his time to aiding rural people with individual problems in a wide variety of fields including disease and insect control; cultural methods; feeding, breeding and housing of livestock; forestry; farm management; grading, packing and marketing; to the solution of which he brings the best information from the college, research station or United States Department of Agriculture.
4. Works as a public official and teacher with all individuals and rural organizations in an advisory capacity. He may foster and encourage new movements or organizations where needed, but insists that groups as well as individuals must themselves perform, manage or carry on the various activities in conducting an enterprise.
5. Works under the general direction of the State director of the Cooperative extension work in agriculture and home economics and the immediate supervision of the State leader of county agricultural agents, or State and district agent or assistant director.
6. Maintains, with other county extension agents, a county extension office as a smoothly functioning unit of the cooperative extension system prepared to furnish information and trained leadership in helping rural people meet the various problems of agriculture and country life.
7. Administers the expenditure of the funds allotted to the county agricultural agent work in a business-like way and for the greatest benefit of extension work in the county.
8. Prepares clear and accurate reports of activities planned, and of progress and achievement so that administrative officers of the State agricultural college and the United States Department of Agriculture, as well as county officials, rural organization leaders and others, know and have available facts relating to the prob-

lems and the agricultural extension work in the county.

B. SIGNIFICANT ACTIONS AND CRITERIA OF ACHIEVEMENT

I. Cooperates with local leaders in defining the significant farming, farm economic and rural community problems and in developing agricultural policies and extension programs which meet the local situations and needs.

1. Stimulates leading local farmers and business and professional men to organize a representative county council or conference board, and supplementing committees which assume responsibility for the policies and extension programs and work with the county agent, supervisors and extension specialists in assembling and analyzing necessary factual data and in outlining policies and programs.
2. Prepares a detailed statement which pictures to the committeemen and to rural people the significant features of the county agricultural resources and of the farming and community life.
3. Outlines the changes which have occurred in farming so that committeemen and others recognize the critical trends in local farm and economic situations and the need for readjustments which may bring larger farm incomes and a more satisfying country life.
4. Makes comparative studies of the prevailing local farm organization, management, and enterprise production costs, and with the help of the council and of the economic specialist ascertains what systems of farm organization and of farm management are most profitable under existing local conditions.
5. Assembles data that show how far the prevailing farm practices in producing crops and livestock and their products meet the local situations economically and efficiently.
6. Assists the county council, or other committees, and the farm economics specialist in ascertaining what adjustments in the production of certain kinds and quantities of crops and livestock and their products are indicated by the yearly and long-time outlook

statements and which of these are likely to be most profitable to the county.

7. Assists the committeemen in gathering and analyzing significant facts which demonstrate the need for more orderly and profitable marketing by individuals and groups as well as the need for improvements in the organization, financial structure and business management of existing cooperatives.
8. Prepares a summary of the critical features of the local farming situations and needs, as defined by the county council, to guide the latter, other committeemen, and the county agent, in formulating increasingly effective policies and extension programs.

II. Works with the county council or other committees, and farm economist and other specialists, in formulating an agricultural policy and current extension programs that include the fundamental adjustments which the farmers should make over a period of from five to ten years, in the kinds and sizes of various farm enterprises; in the organization and management of their farms; and the methods of production and marketing; as well as the critical changes which should be made immediately.

1. Works with the county council and other committees and draws upon the experience of the extension farm economist and other specialists, of research agencies, of the State department of agriculture, of the Federal Farm Board, of farmers' cooperative associations, of marketing transportation and other agencies, until economical and practical solutions for each problem defined in the statement of situations are found.
2. Organizes for each solution the practices considered most essential by the county council into a set of directions specifying the definite actions which lead to success in achieving the solution.
3. Compiles into a single document the statements of situations and problems, and of adjustments and practices proposed as solutions, for approval and printing by the county council as the agricultural policy and program recommended for the county

by the county council and the Cooperative Extension Service.

4. Sends the publication to every farmer in the county and to school officials, editors, and other professional and business men with a letter signed by the chairman of the county council soliciting the interest and cooperation of everyone in studying the problems and recommendations.
5. Meets with the county council and the local program committee in each of the principal communities to select the problems to be attacked and the solutions to be taught, and arranges these into an effective local extension program for the current year.
6. Works with local committeemen, business men and extension specialists in developing ways and means that insure economical and easily obtainable local supplies of the material or services required by farmers in adopting the various recommended practices.
7. Outlines detailed teaching plans and calendars of work for each major activity in the current extension program that guide local leaders and extension workers in attaining the goals set.

III. Teaches a majority of the farmers and rural youths affected by particular problems listed in the program, to use successfully the recommended practices and principles. The teaching plans of work guide the agent, the local leaders, and the extension specialists working with him so that together they:

1. Win the interest and help of editors of local newspapers and periodicals, leaders of rural social and business organizations, town and city men and their organizations, public utility officials, ministers, school officials, and others in advancing the program and the plans of work.
2. Obtain and keep up to date separate mailing lists of farmers and rural youths segregated according to their particular situations and needs.
3. Inform these persons and the general reading public as well, by means of circular letters, circulars, news notes, group meetings and other means and agencies,

how the program was developed, and how significant the various problems and solutions are.

4. Select and train volunteer local leaders and guide them in arranging meetings, distributing educational material, obtaining cooperators, getting reports and in other activities which help secure wide and successful adoption of recommended practices.
5. Select demonstrators and assist them in conducting on their own farms such effective demonstrations that the farmers of the county adopt the methods demonstrated as necessary practices for successful farming.
6. Stimulate all for whom certain recommended practices and supplementing facts are known to be appropriate, to recognize that they have the underlying problem and that the practices recommended offer a solution which brings certain rewards and satisfactions. Mail matter, posters, contests, window displays, news stories, stickers, meetings and other agencies may be used to carry a continuity of appeal.
7. Employ direct-mail matter and local volunteer leaders to get several hundred farmers to adopt and learn appropriate recommended practices and to report their successes and satisfactions.
8. Make success and satisfaction more sure for such learners by maintaining a continuity of instruction and information service by means of subject-matter meetings, tours, demonstration meetings, farm visits and telephone calls, news articles, timely hints and subject-matter material carried in circulars and direct-mail material.
9. Obtain from each farmer concerned, by means of circular letters, local volunteer leaders, or otherwise, a record of what practices he adopted and what success he had with them.
10. Summarize these records and in the light of the results reported, replan the work, redirect the subject-matter recommendations, and reset the goals for accomplishment for each major enterprise so that local participation increases and the whole program and the extension teaching improves notably each successive year.

Congress of the Universities of the British Empire

THE Fourth Quinquennial Congress of the Universities of the British Empire assembled in the Guild Hall, London, July 2, under the Honorary Presidency of His Royal Highness, the Prince of Wales. The list of delegates showed all of the seventy universities of the Empire represented with the exception of Kings College, Canada, a total of 146 official delegates. In addition to the delegates the sixty-nine universities had designated seventy-six official "representatives" and other educational organizations of the Empire and of other countries had designated ninety-one representatives, in response to the cordial invitations issued by the Universities Bureau of the British Empire. The American representatives on the printed list were: Institute of International Education, Dr. G. M. Stratton; American University Union, Dr. G. E. MacLean and Mr. Willard Connelly; Commonwealth Fund, Mr. R. H. Simpson; and the American Council on Education, Dr. J. H. MacCracken. President James R. Angell of Yale, who had gone to London as a delegate to the Congress from the American Council, had been summoned home on his arrival by the death of Mrs. Angell.

At the opening assembly the Lord Mayor of the City of London presided. The Prince of Wales delivered an admirable address of welcome, touching particularly on the need of education for commerce and trade brought to his attention by his recent trip to South America. After a vote of thanks to the Prince proposed by the Lord Mayor and seconded by Mr. Stanley Baldwin, the Chancellor of the University of Cambridge, the official delegates were presented one by one and were greeted with a handshake by the Prince. On special request of the Prince the delegates wore academic costume and the gorgeous trappings of Chancellors, Vice Chancellors and Principals made a memorable picture in

the old Guild Hall which has witnessed so many important ceremonies since the trial of Lady Jane Grey.

The first Congress had been held in London in 1912 with fifty-three universities represented, the second, in Oxford in 1921, with fifty-nine universities represented, and the third in Cambridge in 1926, with sixty-six universities represented. This year both Glasgow and Edinburgh claimed the privilege of entertaining the Congress, and it was finally agreed that Glasgow should yield to Edinburgh and content itself for the time with a one-day excursion to the city on the Clyde, which houses a quarter of all the Scots. The ceremonies in London were, therefore, only in the nature of a curtain raiser, a preliminary cocktail, or hors d'oeuvres, admirably arranged to stimulate and whet the appetite. The inspection of the commodious new quarters built for the Universities Bureau in Torrington Place on land leased from the University of London, which commended themselves to the delegates as admirably adapted to their purpose, visits to various types of institutions conducted by the London County Council, to medical schools and hospitals, to the Regent Street Polytechnic, to Bedford College for Women, and to the Imperial College of Science and Technology, formed the serious educational ingredient, while sumptuous dinners by the Drapers, Goldsmiths, and Cloth-makers Guilds in their ancient halls, a luncheon tendered by the Chairman of the London County Council in the County Hall overlooking the Thames, and a luncheon by his Majesty's Government in London's newest and most elegant hotel, receptions by Lady Astor at her home, by the English Speaking Union at Dartmouth House, by the University of London in the great hall of the Imperial Institute, and garden parties at University College and Bedford College, concocted a brew of British hospitality of most delightful flavor and richness, a heady drink of social recognition not often offered to education in other lands. These festival preliminaries reached their climax in an all-day trip by motor bus to Reading, where the most recently chartered university entertained the company at luncheon, and on from the youngest

to the oldest university to Oxford for tea at Rhodes House and for dinner in groups of three and four at the various colleges, and so back to London by one o'clock Sunday morning, ready for a Sunday interlude of thirty hours rest before the Flying Scotsman should gather in the Congress for the eight-hour trip to Edinburgh.

The program at Edinburgh provided for four morning sessions of two and one-half hours each, devoted to serious papers of high quality on topics of current educational interest, for an afternoon business session, for afternoon visits to educational institutions and to the lovely country round about, and for as much social intercourse as could be squeezed in by beginning with breakfast at 9 a. m., continuing with luncheons, and winding up with dinners and receptions. The already rich social program received a dash of further spice by the unexpected inclusion of the delegates among the five thousand summoned by royal command to Their Majesties' garden party at Holyrood Palace, where more top hats assembled than have probably ever been seen together in America at any one time, unless perhaps in the parades of the McKinley sound money campaign, and under those top hats many of the best brains of Britain.

The serious papers, all of a high order of excellence, included a historical paper on the relations of the City of Edinburgh and the University by the Lord Provost of the City; an address on Universities and Current Fallacies by Lord Meston of Agra and Dunottar, Chancellor of the University of Aberdeen, who discussed universities from the standpoint of a layman and outsider, who was also a strong believer in the possibilities of universities as a national power and as an imperial nexus, raising the question whether universities might not be making too much of a fetish of research and hoping the universities would not neglect their important function of analyzing and combating current fallacies and illusions; an address by the Marquis of Linlithgow, one of the representatives of the Carnegie Trust for the Universities of Scotland, and an address on the University Graduate in Commerce and Industry by Sir Robert Waley Cohen, Manag-

ing Director of the Royal Dutch Shell Oil Company, who pointed out that university graduates were being employed more and more by the large corporations and that the universities might well give more attention to education for business, expressing the hope, however, that this would not destroy or be made a substitute for the classical and liberal foundation hitherto given by British Universities.

Professor D. Nichol Smith, D.Litt., of the University of Oxford, in opening the discussion on the standard and the conditions of candidature for the Ph.D. degree in relation to other post-graduate qualifications stated:

1. The misgivings with which the degree of Ph.D. or D. Phil. was instituted find some justification in the experience of the last twelve years. It is understood to have served its purpose best in the Faculties of Science; most of the criticism comes from other Faculties. It ought to be clearly distinguished in its requirements from the M.A. (in those universities which demand a lengthy dissertation), the B.Litt. or M.Litt., the B.Sc. or M.Sc., the D.Litt. or D.Sc. Till the grading of those post-graduate degrees is satisfactorily accomplished, much of the criticism will remain valid.

2. The chief objection to the degree in the older universities is that it encourages men to engage in research at too early an age, when they would be better employed in gaining a general acquaintance with their subject than in making a particular study of a small section of it. Few of the young aspirants to the degree possess the necessary 'background.' Even the best candidates present work which in the course of a year or two they themselves regard as immature. The title of 'Doctor' ought to be reserved for work which shows some degree of maturity, if it is to retain the meaning which has been traditional in this country.

3. The obvious way to weaken this objection is to impose a more rigorous test before a candidate is admitted to work for the degree, and to require a higher standard of performance for the final award. There is a strong body of opinion in both the older universities that the Doctorate in Philosophy in a literary subject ought to conform to the standard of the French *Doctorat es Lettres* rather than that of the German doctorate.

* * *

7. The Faculty of English in Oxford has found that the institution of the D.Phil. has been since 1925 a source of

strength, but only because the Faculty grappled with the problem of relating the two degrees of the same kind which it was called on to administer. The most obvious result has been the organization of a little school of advanced studies in English. It has done good work, and may be expected to develop both in numbers and in scope. To it must be attributed the marked strengthening of the B.Litt. in recent years; and a sequel to this strengthening is the definite establishment of a high standard for the D.Phil. The man who gains the B.Litt. is guaranteed as competent to research; the man who gains the D.Phil. has researched so successfully as to have made contributions to his subject which deserve to be made known to other scholars.

8. Different universities have different problems, and what suits one subject may not suit another. The large numbers of candidates in all our universities who are tempted to work for a doctorate with no qualifications for research, and with little knowledge of its elements, is bound to invite criticism and even to create opposition; but a degree must always be what a university makes it. When a university institutes a post-graduate or research degree, the surest means to make the degree a success, and perhaps the only means to give it stability, is to organize post-graduate or research instruction.

Another subject was "The Conditions of Admission to Universities and their Effects." Professor F. E. Sandbach, Ph.D., of the University of Birmingham opened the discussion. A partial summary of his paper, as supplied to the Congress, follows:

A subject full of difficulties and intimately connected with other thorny questions. No permanent solution of Entrance Requirements problem likely until whole system of school and University education is based on clear recognition of respective functions of schools and Universities and kinds of intellectual training especially appropriate to each. A simple and almost ideal solution may then be possible, one not involving either domination of school studies by University requirements or a standardized examination of an external character.

Though still hardly more than within distant view of the time when such a solution may seem practicable, we are well on the way toward it. After a period of rapid development in secondary education we are entering a period of relative

stability. Therefore the duty of the Universities (and to their interest) to consider whether the present conditions of admission are satisfactory, and, if not, what changes are desirable. This duty has been recognized by many University teachers for some years, and there has already been much consideration and discussion of the problem, e.g., at the Annual Conference of the Universities of Great Britain and Ireland in 1929 (cf. "Report of Proceedings," published by the Universities Bureau of the British Empire); by the Association of University Teachers of England and Wales (cf. "Report on Entrance Tests and Initial Degrees," published in the *Universities Review*, October, 1930, and separrately); and quite recently by the Joint Matriculation Board of the Universities of Manchester, Liverpool, Leeds, Sheffield, and Birmingham (which has arrived at certain definite conclusions and planned a new set of Entrance Requirements). Importance of a common policy for all British Universities.

The conditions of admission to Universities should have the following "effects" (among others):

(1) They should ensure that all new entrants (*a*) are sufficiently mature for the kind of instruction the Universities ought to provide; (*b*) have had a broad general education; (*c*) have reached (in 3 or 4 subjects) a standard of attainment adequate as a basis for the further study of those subjects at a University level.

(2) They should make it as easy as possible for the schools to combine preparation for the University with the provision of a suitable education for that great majority of their pupils who have no intention of proceeding to a University.

The conditions of admission at present in force have become antiquated owing to the development of post-matriculation work in the schools; they go some way towards ensuring a broad general education; but they are far from fulfilling the requirements specified above, and they help to cause or to perpetuate anomalies and weaknesses in our educational system.

The standard of the present examination test is such that it is reached by school pupils, including the only moderately intelligent and industrious, at an average age of about sixteen. Neither maturity of development nor an adequate standard of attainment in individual subjects is ensured. The first year Pass Degree courses consequently remain at an upper form school level, and the standard and prestige of the degree itself are kept down.

Fortunately, very few students now enter the Universities as soon as possible after qualifying to do so. The great majority stay at school for two or more further years, thus attaining a reasonable degree of maturity and a more adequate knowledge of their future subjects of study. Of the 8,225 students who entered on degree courses in the Universities and University Colleges of England, Scotland, and Wales in 1929, more than half (4,207) were nineteen years of age, or over, while very nearly seven-eighths (7,015) were eighteen or over.

* * *

Not only in the Universities but also in the schools are undesirable effects produced by the present conditions of admission to Universities. In many (most?) schools the choice of subjects, and the courses of work in those subjects, tend to be determined too little by the real needs of the pupils, and too much by University Matriculation regulations. This is due mainly to the fact that a Matriculation certificate can be gained by means of the (First) School Certificate examination, provided the subjects taken and the standard reached comply with Matriculation requirements. Thus the special conditions imposed by the Universities on that small minority of school pupils who wish to enter a University tend to be imposed also on that large majority who will go direct from school into the world.

Reform urgently needed. Might well follow, in general, the lines suggested in the "Report on Entrance Tests and Initial Degrees" already referred to, viz,. that the Universities should require:

(*a*) Evidence of a satisfactory education up to the age of sixteen.

(*b*) The passing of a test taken at the age of seventeen, or over, based on a modification of the present Higher School Certificate examination, and including as its one obligatory element, a test in the use of English.

(*c*) A certificate from the school attended by the pupil giving guidance as to the pupil's powers and interests.

An address was delivered by Sir Donald MacAlister, Chancellor of the University of Glasgow whose valiant spirit bears well his accumulated years and honors. Discussion of Post-graduate Study of Medicine and Surgery in Great

Britain was opened by Dr. H. L. Eason, Superintendent of Guys Hospital, London.

The Vice Chancellor of the University of Edinburgh, Sir Thomas H. Holland, the genial host of the Congress, opened the discussion on "Facilities for Overseas Students in British Universities":

1. Personal observations made before 1929, mainly regarding Indian students at British University institutions, led to the conclusion that, in general, undergraduates from foreign countries are handicapped in their work by the distractions of a strange social as well as a new academic atmosphere; and to this cause mainly several instances of failure could generally be traced. And yet post-graduate and specialized students from overseas seemed to compare favorably with their British contemporaries. Statistical analysis of the results obtained at Edinburgh since 1921 by overseas undergraduates shows that in the three faculties which they enter in largest numbers—Arts, Science, and Medicine—they fall behind their British contemporaries, and this appears to be true for all geographical groups in all three faculties, except for the medical students of Australasian origin, who numbered only 27.

2. In the Faculties of Arts and Science a fair, but not precisely accurate, test is obtained by comparing the entries between October, 1921 and 1927 with the degrees obtained between July, 1924 and 1930. For Medicine, five-year periods are counted as the normal minimum for qualification. This range back only to 1921 avoids the special conditions immediately following the War. The results are expressed in the following tables:

FACULTIES OF ARTS AND SCIENCE, EDINBURGH UNIVERSITY

Origins of undergraduates	*Entries* 1921–27	*Degrees obtained,* 1924–30	*% of punctual successes*
British	3465	3194	92
Overseas	425	240	56.5
Egypt	26	16	62
Indian region	246	162	66
Far East	41	16	39

FACULTY OF MEDICINE

Origins of undergraduates	*Entries* 1921–25	*Degrees obtained* 1926–30	*% of punctual successes*
British	698	566	81
Overseas	276	179	65
America	24	17	71
Australasia	27	24	89
Egypt	25	13	52
India	52	23	44
South Africa	84	56	67

3. The evidence indicates the disadvantage to overseas undergraduates of entering, without previous university experience in their own lands. For example, Indian students who enter for the Edinburgh B.Sc. mostly come with some previous university qualification. Within the periods considered 170 entered and 123, or 72 per cent, obtained degrees. This result is distinctly better than the overseas average, but is still well below that for British undergraduates.

4. It is obvious that the return of individual failures will never demonstrate overseas that there is some general handicap affecting most undergraduates who go to a strange land without previous university training at home; for it is only the successes that are widely published. It is advisable, therefore, that the average results should be known as well. Two errors are worth correcting: (1) that an overseas undergraduate cannot get training as good in his home university as he can in Britain; (2) that university life as an undergraduate widens his mnid: more often, either it confirms his national prejudices, or it hampers his academic work.

5. The situation is quite different for the post-graduate student who has a well-defined specific group of problems to tackle; is not expected to take part in the undergraduates' clubs, and meets only the staff or senior students of his own specialized type. His experiences tend to the increase of international friendliness. Movement from one university to another to get the benefit of training under well-known specialists is inevitable and necessary, but there is a greater uniformity among the universities in purely undergraduate training.

The addresses at the Congress will be published in full in a volume to be prepared by the Universities Bureau, 88A Gower Street, London, W. C.

At the business session the Congress received the important report of the Executive Committee for the five-year period 1926–31, during which time the administrative staff had been entirely reorganized and a new home secured for the Bureau. In June, 1929, Sir. H. Frank Heath, G.B.E., K.C.B., had been asked to investigate the work and the finances of the Bureau. He later served for a year as Secretary, in August, 1930, becoming Honorary Director at the appointment of Mr. W. B. Brander, C.I.E., C.B.E., to the secretaryship.

The Executive Committee, through its Chairman, Dr. T. Franklin Sibly, Vice Chancellor of the University of Reading, submitted to the Congress for approval amended Articles of Association which in addition to certain legal and technical changes were primarily significant in that they substituted as ordinary members of the Bureau the seventy British Universities themselves as corporations, instead of individual representatives of these universities, as provided in the original articles. This proposal was viewed with alarm by the Vice Chancellors of the University of Leeds and of St. Andrews, as an impairment of the sovereign independence of their corporations, and received with some hesitation by Oxford and Cambridge, as a further encroachment of the on-coming tide of democracy on ancient isolation and privilege. Under the unflinching leadership of Reading, Birmingham and London, and the skillful diplomacy of Sir Frank Heath, reservations were inserted which satisfied the scruples of Oxford and Cambridge and the articles were adopted by an overwhelming vote.

In connection with the reorganization, the dues of members were increased almost 50 per cent to place the Bureau on a sound financial basis, requiring the substantial annual contribution of £150 each from the larger universities, and the contribution of £30 annually from the Indian and Canadian universities. There was considerable discussion as to whether all the universities would be able to meet the new scale of annual contributions and after a lengthy discussion conducted in the best spirit, the matter was committed to the Executive Committee for final adjustment.

The writer was particularly interested in the discussion, having just come from the annual meeting of the American Council on Education, where incorporation of the Council had been effected after its operation for thirteen years as an informal association, and where similar problems had had to be faced and solved.

General satisfaction was expressed at the meeting that the Bureau had been placed on a permanent and satisfactory basis, and many expressions of hearty appreciation of the skillful and devoted service of Sir Frank Heath and of Vice Chancellor Sibly as Chairman of the Executive Committee were heard.

To an American the British organization seemed to be differentiated from our own Council by two factors: First the British organization is a compact organization of only seventy universities, although these universities are located on all sides of the globe. This gives the British Bureau a homogeneous character which the American Council, as the representative of seven times seventy accredited institutions, even though they are all of one country, can hardly reach. Second, in American educational thought one ordinarily thinks of universities as functioning in a larger and more abstract field than government, whether that field be conceived as learning, truth, the advancement of knowledge, or the welfare of mankind. In the British Congress stress was laid on the universities as instruments of Empire and the Congress as a nexus which might replace the dissolution of the more formal political bonds between the commonwealths. The universities were conceived as performing important functions in the body politic and assigned an indispensable role in national polity. The presence of an unusually large delegation from the universities of India—fourteen delegates of the highest officials—at this particular juncture, emphasized the fact that education and government were indissolubly related, as Dr. Judd had pointed out in his presidential address at the last meeting of the American Council.

To an American it was particularly interesting that the

presence of the large number of overseas delegates should have been made possible by a grant of $40,000 from the Carnegie Corporation of New York to the Universities Bureau, half the amount being used to pay the traveling expenses of delegates from distant countries, so that some of the cement used in strengthening the bonds of Empire was of American manufacture.

It was also interesting to the American observer to find how widely Mr. Flexner's recent book had been read, particularly the section on American universities, and accepted as a trustworthy picture of the American educational system. The Vice Chancellor of the University of St. Andrews, in his commencement address at University College, expressed his satisfaction and gratitude that British education remained unaffected by anything that had been done in education in America, and more than once after dinner and after luncheon toasts were enlivened by facetious reference to American universities and the teaching of ice cream making, unmindful of the fact that this important element in a university course could be found nearer home as an essential ingredient in the course in agricultural dairying at the University of Reading.

The classical type of British education seemed to the Americans to find expression in the apriori deductive method of approach displayed in papers dealing with such questions as education and business and the absence of the inductive spirit which would display keener interest in the experience of other countries with the same problem. To the scientifically trained inductive American mind it seemed something of a waste of opportunity to bring important educational executives from the four corners of the Empire and not to make more of an effort to pick their brains to find out for the common good how they felt and thought on important educational questions. Apart from the business sessions there was almost no opportunity for general discussion so that the interchange of opinion was chiefly informal and private, and went on behind the scenes rather than in open sessions of the Congress.

In every other regard the Congress was a great success, a marvel of careful organization and of smooth running efficiency. The outsiders, like the writer, who were privileged to attend its sessions feel only the greatest gratitude for the warm welcome they received and the many courtesies and hospitalities showered on them and their families. We could wish that America at some time might stage an educational gathering of equal significance and equally worthy of a visit from our British neighbors.

JOHN H. MACCRACKEN,
Washington, D. C.

A State University Reaches Out

SINCE his inauguration as president of the University of Oregon in the fall of 1926, President Arnold Bennett Hall has had in mind a plan for building the University into the lives of the people of the state. We are not here concerned with his larger program, but a brief history of an important part of it will provide an enlightening background for this paper which deals with certain aspects of the plan which concerns this Federation.

Approximately fifteen years ago there was created in the University a School of Sociology in the hope that some day it might play an important part in planning and directing the civilization in a state still in its youth. In 1919, at the request of the progressive social agencies of Portland and the State of Oregon, the University established the School of Social Work. In the first announcement of that School there appeared a statement somewhat as follows:

The objects of the School shall be to train social workers to provide trained personnel for the cooperating agencies; to improve the standards of social work done by the public and private agencies of Portland and the state; and to coordinate the work of the agencies into a uniform program.

The duties of the Director of the School of Social Work were conceived of as follows:

The Director of the School shall act in an advisory and consulting capacity to the social agencies; he shall have in mind the preparation of a plan for keeping the welfare program of the state abreast of modern trends in social work. In short, he was to be the one person thinking in terms of the state as a whole rather than in terms of any single agency.

In 1929 the president of the University commissioned the Dean of the School of Social Work to present a plan combining the functions of the School of Sociology and the School of Social Work. The result was the creation in June, 1929,

[1] Presented at the Convention of the American Federation of Arts, May 19, 1931, Brooklyn, New York.

of the School of Applied Social Science, with divisions in Eugene and Portland. The Portland division contains the Department of Social Work Training, the Department of Nursing and Health Education, and a branch of the Research Division and the Department of Public Service. In Eugene provision was made for the training of rural welfare executives, a Department of Community Organization, a Department of Personnel Training, a Research Division, a Bureau of Municipal Reference, and a Department of Public Service.

In addition to its former program of training the new school found several interesting things waiting to be done: (1) the culmination of ten years of work and planning in the welfare field opened the way for a constructive program of social welfare; (2) the League of Oregon Cities, composed of fifty-three small towns, petitioned the University to establish a Bureau of Municipal Research and Consultation Service; (3) the time seemed opportune for a program of conservation of the State's exceptional resources of a scenic and recreational character, and (4) while the reorganization was in progress a delegation from a group of organized rural communities petitioned the University to provide cultural and social leadership for a vigorous community organization movement. Naturally, all of these came within the province of the School of Applied Social Science.

The next year and a half were spent in studying the general situation, making preliminary local studies, and carrying on experimental activities, feeling the way toward a program behind which the resources of the University might be mobilized. As a result the present five-year plan has gradually taken shape. It cannot yet be said to have taken final form, but it at least provides a working basis for procedure. I shall present the general plan only in outline and proceed to a more detailed description of that part of it with which you are most concerned. A syllabus of the entire program will be provided to anyone on request. The plan as here set forth must be considered as tentative, and adaptable to conditions as we discover them and to whatever resources may become available.

The plan is known as a "Five-Year Program of Community Service for the Enrichment of Community Life, for Social Welfare, and the Conservation of Community Resources in Oregon." The program is to be directed and carried out by the School of Applied Social Science in cooperation with other schools and departments, and with state, county and municipal agencies, and state and local private welfare and civic organizations.

The program has four main divisions. These are:

I. *Community Service.* To provide leadership for a vigorous and spontaneous community organization movement in the state affecting rural communities, over three hundred already known. Most of these are in the open country or in villages of four hundred persons or less. To extend the benefits of higher culture to these communities. To stimulate an interest in health and recreation, and to encourage creative effort and cooperative enterprise along cultural and economic lines.

II. *An Effective Coordination of Social Resources.* This part of the plan undertakes to coordinate the programs of the public and private welfare agencies of the state and to provide a more effective application of them to the individual communities, especially those in the open country and smaller towns.

III. *Municipal Research and Consultation Service.* To provide research and consultation service to approximately one hundred towns, most of which are less than 1,000 population, a few from 3,000 to 5,000 and not more than a half dozen of them over 10,000. All but the larger ones are affected by the community organization movement outlined above, but in addition stand in need of research and consultation service.

IV. *Appreciation, Utilization and Conservation of Natural Civic Resources.* Few states are as abundantly blessed as Oregon with natural resources which make for the enjoyment of life. Lofty and extensive mountain ranges, wild rugged areas, volcanic peaks, vast evergreen forests, innumerable mountain lakes and streams, one of the greatest river gorges in the world, a great crater lake six thousand feet high, a

deep water harbor 100 miles from the sea, vast areas of upland desert with a natural museum of geological evidences of exceptional significance, and 300 miles of rugged ocean shore as yet almost untouched by the hand of man, provide a natural setting for a civilization whose beginnings are yet within the memory of living persons. There are many organizations and individuals interested in one or more aspects of these natural advantages. As yet there is no concerted movement for the conservation of these resources, the appreciation of their significance for human culture and enjoyment, or the utilization of them for social and esthetic purposes. This plan proposes to bring about some concerted action to these ends.

Much as I should like to tell you of the entire plan, the time remaining permits only a brief presentation of the program designed to bring some of the advantages of higher culture to the people living in the small towns and rural communities. This is outlined as part one of the general plan of community service.

After the community organization movement had been studied in a tentative fashion, the state board of higher education gave the University permission to accept the invitation of the communities to provide cultural and social leadership for the movement "provided, for the present, that funds could be secured for the purpose from sources outside the University budget." In spite of this financial handicap the opportunity for research, for experimental work in adult education, and for actual service to the rural communities, seemed so urgent that an effort was made to secure a small fund to make a beginning in this field. Our efforts were successful in getting enough money to put two workers in the field for a preliminary survey. That work is now nearly completed and enough has been learned about the situation to warrant going ahead with plans for an experimental program and for additional research as a basis for a permanent program when stable resources shall have been provided. The following is a brief statement of what has been discovered by the study to date. The territory covered includes only the more accessible sections of the

region west of the Cascade mountains. Even here the information secured is only partial. Much remains to be done.

To date two hundred and eighty communities have been located in which some sort of a community program is being carried on. Judging by Marion County, which is probably the best organized county in the state, the average number of persons in each organization is about one hundred.

Attendance at the community meetings which were attended by members of the staff averaged about two hundred and fifty persons. The gatherings are limited to much smaller numbers in a great many communities because of inadequate quarters in which to hold meetings. Special occasions affecting several communities not infrequently bring out audiences of fifteen hundred persons. The first meeting your speaker attended consisted of sixty persons of all ages crowded into a tiny schoolroom designed to accommodate twenty pupils. About fifty persons stood around the walls throughout the entire performance.

From 10 to 15 per cent of the communities have built community houses. Some of these are admirably equipped with stages for plays and entertainments, with crude facilities for cooking and space for feeding large numbers, As a rule the surroundings are extremely crude and unadorned. A considerable number of the communities have their meetings in school houses, others in buildings adjacent to school houses which are used for gymnasium and assembly purposes. Because of the long rainy season which takes the place of winter, a great many schools have play sheds. Sometimes these have a hall upstairs used for community purposes. Some communities use Grange halls, lodge halls, vacant store rooms and lofts, and a small number have no regular place of meeting.

Thus far we have been unable to find any organization or agency which has been stimulating the movement as a whole. It appears to be almost entirely spontaneous. The chambers of commerce in nearby towns are naturally interested for business reasons, but the state chamber has no definite program for promotion of the movement.

A very few of the communities have been organized for

twelve or fifteen years, but there seems to have been a great acceleration of the movement within the last five years. There is a considerable demand at present for help in the actual processes of organization in communities just becoming involved in the movement; and our survey, only partially completed, has revealed some thirty communities which, with a little careful stimulation, would be able to carry on constructive programs to their great benefit.

The programs of the organized communities are predominantly cultural. Following the lines of least resistance, they give considerable attention to amusement, but the greatest interest seems to be in plays and entertainments. Most of them carry on forum discussion on topics of the day on which they are perhaps as well informed as similar groups in city neighborhoods would be. They ask for reading lists, subjects for discussion and debate. They request elementary training in public speaking and training in parliamentary law. Some of them do excellent work under direction of the home demonstrators of the college and exhibit their work with pride at the county fairs. The field is wide open for orchestra, band and choral music, and there is a keenly felt need for adult recreation.

So far we have done practically no work in what we call southern Oregon, nor have we been east of the Cascades. In Baker County we know of fourteen natural communities which could be served as a unit if we had the facilities. This is mountain territory and the communities have to provide their own cultural and social life if they have any.

On the basis of what is now known about these communities it appears possible to carry on experimental work in various kinds of adult education. Most practical seem to be the fields of drama, speech, creative arts and crafts, art appreciation, physical education and recreation, and in band, orchestra and choral music.

Tentatively the plan is as follows: Let us take, for example, drama. Nearly all of the communities put on plays. These are taken quite seriously. In almost every community there is a local person who coaches or puts on the plays. The University has in mind the equipment of a drama truck,

with improvised scenery and stage properties such as almost any community could provide for itself under competent instruction.

Preliminary surveys would locate strategic community houses in which an initial demonstration would be put on. This would be a simple play put on by students of the drama department with a lecture on stage craft, lighting and technique. To this demonstration would be invited the coaches from all community houses within a radius of 20 or 30 miles. This would be followed by a short course or school in coaching plays for coaches from surrounding communities. A play would be put on at the school and each coach would put on the play simultaneously at his or her own community house, putting into practice the things learned at the coaching school. At the end of the course each community affected would be provided with a coach of its own with elementary training. In time these would be followed by more advanced courses undertaking more ambitious plays with some instruction in dramatic literature. All of this could be followed where desired by extension or correspondence courses from the drama or English departments. Creative work in play writing could be stimulated and encouraged, an effort being made to have communities put on plays written by local authors.

In the case of music, the technique would be somewhat different, the initial concert or series of lecture concerts leaving behind an instructor serving a group of communities and creating an interest in orchestra, choral or band music as the local conditions might dictate.

The setting seems ideal for the use of a demonstration truck carrying an art and crafts exhibit, putting on two or three-day demonstrations with lectures and educational motion pictures. Wherever a sufficient interest should be uncovered, short courses in arts and crafts, utilizing local materials, might lead to extensive courses later on. In this connection the University, under the leadership of Dean Ellis F. Lawrence, has built up a School of Arts and Crafts of rare excellence from which to proceed with practical instruction.

The significance of this struggle of the vigorous rural communities of Oregon to preserve for themselves their cultural and social life should not be underestimated. Rural life in Oregon has a natural setting in climate and typography which approaches the ideal. The nature of much of the country is such that the social life must for many years at least be carried on independent of the town. In many communities the movement represents a determined resistance to the industrial and commercial encroachment of the cities. We have several communities carrying on their community programs just outside the city limits of cities of eight, ten and twenty thousand population. Our research has not gone far enough to reveal the tremendous social force behind the movement but I am inclined to the opinion that it is a determined effort, partly unconscious, to retain the opportunity for community self-expression along cultural lines, which they sense is being lost in the commercialized recreation and amusement of the larger centers. There is a very definite resistance in several quarters against consolidation of schools in the towns for this very reason. There is no similar objective to consolidation in rural areas where the school can be retained in the neighborhood as a center of their social life.

The fervor and earnestness of their meetings impresses one with the vitality of the movement. The meager resources of their material equipment, the plainness of their buildings, absolutely unadorned in most instances, give a suggestive cue. It is but a step from the enrichment of their cultural life to the beautification of the setting in which it finds expression. These pentup cravings might easily be released along creative lines with a little leadership and instruction.

While building they might as well, and almost as cheaply, build beautifully amid beautiful surroundings, in which the natural landscape abounds. This seems seldom to have occurred to them. Club house plans and ideal landscaping for grounds could be provided at very small cost and the love of beautiful surroundings could be extended to their homes and neighborhoods.

In conclusion I would call your attention to the numbers

and character of people involved. This rather hurried preliminary survey which we have made indicates that a constructive program could reach immediately three hundred communities, averaging two hundred and fifty persons as an absolute minimum. This means 75,000 persons living in small villages or in the open country. Within five years, properly financed, it should constructively affect 200,000 persons.

What are these persons like? To be brief, they are of almost pure American stock, a large part descendants, two generations removed, of the pioneers who claimed the virgin wilderness. They have, many of them, graduated from colleges or universities, and they are sending their children to college now. Many of them have moved on to the land to escape the commercialism and industrialism of the larger cities.

Their love of the country and their hunger for participation in the cultural advantages now available to the city dwellers amount almost to a passion. The movement of population is definitely to the land, and, on account of the character of the state, especially of the valley, the coast and the mountainous section west of the Cascades, will probably continue to be so for a long time, and may permanently, with a little encouragement, resist the invasion of industrialism. I believe truly that they are definitely more interested in living satisfactory lives than they are in making money or getting rich. Their living conditions are simple, almost frugal; there is little that suggests a craving for luxury.

This is definitely a cultural movement. Their turning to the University for help is significant. Confessing to a limited knowledge of conditions in rural areas elsewhere in the United States, I believe the opportunity in Oregon for carrying higher culture to the "folks" and of enabling them to win it for themselves is unparalleled.

PHILIP A. PARSONS,
The University of Oregon

The Form of the American History Examination of the Cooperative Test Service[1]

EACH of the equivalent forms of the examination in United States history will consist of 200 items or scoring units. These items will be of various types and will be organized in the examination into five major divisions or parts. The entire test is intended to be administered in two hours of testing time, including the necessary time for reading directions and for the other details of administration.

PART I

Part I of the examination will be devoted primarily to the measurement of the student's grasp of chronology, or time sequence of historical events. It will consist of fifteen exercises of the matching type, each of which will constitute three scoring units. Ten of these exercises will be of the "ranking" or "matching event with event" type, as illustrated below:

---

[1]This statement was written by Dr. Lindquist to accompany the much longer document entitled "Outline of Basic Content to be Used in the Construction of Ten Equivalent Forms of an Examination in American History for High Schools and Colleges, Prepared for the Cooperative Test Service of the American Council on Education." The statement was written as a guide or aid to the scholars who will review the outline of basic content, and is published here in answer to the widespread interest in the work of the Cooperative Test Service.

Dr. Lindquist's statement seems significant at this time because it illustrates and discusses lucidly the forms of questions which will be characteristic of all of the projected social studies examinations of the Cooperative Test Service, and because it illustrates concretely the broadly cooperative way in which the construction of the Cooperative Tests is being carried forward. In this connection, the reader is referred to the report of the Director of the Cooperative Test Service, published in the July issue of the EDUCATIONAL RECORD, page 244. The outline of basic content is being submitted to the reviewers only in typewritten form.

Directions to the student: This part of the test is intended to discover how well you can relate historical events to one another with reference to the time in history at which they occurred. In each exercise you will find three events listed in the right-hand column. In the case of each of these events, write in the blank which follows it the *letter* corresponding to the event in the left-hand column which *most closely preceded* it in history. Write a zero in the blank if it is preceded by none of the five left-hand events.

For example, in the first exercise, the invention of the telephone was more closely *preceded* by the Civil War than by any other of the five events in the left-hand column. The letter *b* is therefore written in the first blank. The other blanks in the first exercise have been correctly filled. Since the discovery of America by Columbus came before any of the five left-hand events, a zero (0) was placed in the blank after it.

Proceed in the same fashion with the rest of the exercises.

(*a*) Advent of the automobile	Invention of the telephone	b
(*b*) Civil War		
(*c*) Settlement of Jamestown	Inauguration of Washington	e
(*d*) French Revolution		
(*e*) American Revolution	Columbus discovered America	0

It is clear that the ability to provide the correct response to any one item requires more from the student than the knowledge of the time relationship of only the two events matched. Before selecting the Civil War as the correct response to the first item above, for example, the student would have to consider and eliminate the possibility that any of the other four events might have intervened. The student who responds correctly to all three items in an exercise of this kind is almost certain to have the ability to place all eight events in the exercise in a correct rank order. It is therefore possible, with only ten of these exercises, to secure a very reliable measure of the student's ability to rank as many as eighty important historical events.

This type of exercise, in which dates as such do not appear at all, is based on the contention that in the last analysis the learning of a date is only the means to an end, and not the end itself. It is essentially a device whereby the student is more

conveniently enabled to relate events to one another along the time line. Dates themselves are of little significance, except in so far as they enable the student to do the kind of thing called for in these exercises. This type of exercise, therefore, is not inconsistent with the usual practice of teaching dates as such, but only attempts to get at more directly the purpose for which dates are taught at all.

It should, furthermore, be obvious that the difficulty of exercises of this type is largely a function of the proximity of the events included in a single exercise. For the student to decide whether the invention of the telephone came before or after the invention of the arc light is obviously more difficult than to decide whether it (the telephone) came before or after the invention of the cotton gin. This factor will be taken into consideration in the later grouping of items into the exercises. In general it will be the policy to call for close discriminations only between events that are in the same related chain of events, and to introduce larger time intervals when the events in question have no important direct relationship to one another. For example, it is more important for the student to know that the Wilmot Proviso antedated the Great Compromise than to know that it antedated the discovery of gold in California.

It is clearly important that the student of American history have some appreciation of the time relationship between American events and those of world significance. It is for this reason that there have been introduced into Part I a number of events of the latter type.

All exercises of the type described will be based upon the *un*indented items in Part I of the outline.

The remaining five exercises (fifteen scoring units) of Part I will be of the type illustrated below:

Directions to the student: In each of the following exercises you will find each of three historical events described or suggested by a statement in the right-hand column. In the blank following each of these statements write the letter corresponding to the time period in the left-hand column in which the event occurred. For example, in the following

exercise the first statement refers to the Sherman Anti-Trust Act, which was passed in the period 1886–1895. The letter *b* is therefore written in the first blank. The other blanks in the first exercise have been correctly filled. Proceed in the same way with the next five exercises.

(*a*) 1876–1885
(*b*) 1886–1895
(*c*) 1896–1905 A federal act was passed declaring "every contract, combination in the form of trust or otherwise, or conspiracy or restraint of trade among the several states or with foreign nations" illegal..... *b*

(*d*) 1906–1915 Panama Canal opened for world traffic..... *d*

(*e*) 1916–1925 At an international conference, a United States secretary of state proposed a "naval holiday" of ten years in the construction of battleships..... *e*

The significant aspect of this type of exercise is the way in which it can call for a reasoned understanding of the event on the part of the student, as well as for the bare verbal association between a date and a name. For example, in item 1 of the illustration it is not sufficient that the student has learned by rote the fact that the Sherman Anti-Trust Act was passed in 1890—he must also know of what the act consisted. The difference in the degree of inferential thinking or of reasoned understanding called for by the exercise already given and by the following one is obvious.

(*a*) 1876–1885 Sherman Anti-Trust Act..... *b*
(*b*) 1886–1895
(*c*) 1896–1905 Washington Naval Conference..... *d*
(*d*) 1906–1915
(*e*) 1916–1925 Opening of Panama Canal..... *e*

It will be the policy, then, in the construction of the majority of the items in the last five exercises of Part I, to *suggest* the event to be matched with the time period rather than to name it. Instead of "Eli Whitney invented the cotton gin," for example, the student will find "A machine was invented that made the production of a staple crop so profitable that the plantation system, and therewith slave labor, was fixed upon the South." Items of this type are consistent with the principle that the student should never memorize a date-event relationship only in a rote, mechanical

fashion, but should in each case have a reasoned appreciation of the significance of the event—should know *why* he is asked to memorize it.

It is for this reason that in Part I of the outline there are listed, opposite many of the dates given, not only the names of the events to be associated with them, but also phrases describing certain outstanding consequences or aspects of that event. These phrases (which have been *indented* under the name of the event to which they apply) will serve as the basis of items of this latter type, and will be used in the same phrasing in which they are given in the outline. The reviewer is therefore asked to pay particular attention to this type of material in Part I, with a view to suggesting further consequences and aspects of important events that might be used for this purpose, or to suggest improvements in the phrasing employed.

Certain unique problems in the phrasing of test items of this type should be borne in mind by the reviewer, and will explain what may at first appear to be unnecessary peculiarities in wording. The principles involved can perhaps best be made clear by means of a specific illustration. Consider the following alternate phrasings of an item dealing with the same event:

At the Washington Conference, Secretary of State Hughes proposed a "naval holiday" in the building of battleships.

At an international conference, Secretary of State Hughes proposed a naval holiday in the building of battleships.

At an international conference, the secretary of state of the U. S. proposed a naval holiday in the building of battleships.

At an international conference, the U. S. secretary of state proposed that the building of battleships be discontinued for ten years.

A correct response can be made to the first item by any student who has memorized "Washington Conference—1922," even though the rest of the statement means nothing to him. The second phrasing is better, but the student could place it in the proper time interval if he only knew at what time Hughes was secretary of state, even though he knew nothing of the Washington Conference. The third statement

is better, but it still contains the catch phrase "naval holiday," which the student might have associated with the proper date without appreciating much of what it meant. The student who recognizes the event as described by the last item, and who can place it in the proper time interval, is likely to have a better understanding of the event in question than one who could answer any of the preceding items but not the last.

In selecting the phrasing of the unindented items in Part I, an attempt has therefore been made to eliminate "clues" irrelevant to the event in question, as well as to avoid the use of "pat" or "catch" phrases that the student might have memorized but which may not indicate a reasoned understanding of the event. The phrasing finally chosen, however, must be entirely free from ambiguity—that is, it must suggest the event in question, and not any other. Finally, it must suggest the event in such a way that it is fair to expect the student to recognize the association—that is, it must deal with a *significant* aspect or consequence of the event.

While, in the sample exercise given, the time interval used was a ten year period, this will not be a consistent policy with all of the items of this type. Events of recent occurrence, or events which it is important that the student be able to place accurately, will be used in exercises for which the unit on the scale is a five- or ten-year period. Other events, depending upon their nature, may be used in exercises in which the unit is as large as twenty-five or fifty years.

In terms of this discussion of the nature of the test exercises, the problems to be considered by the reviewer in evaluating the content of Part I of the outline are as follows:

1. Is each of the events listed more significant than any which has been omitted?

   If not, the reviewer is requested to cross out the less important event and to substitute for it, at the proper place in the outline, the event which he considers as of greater significance.

2. Is the name or identifying phrase the best that can be provided for the event in question?

This, of course, applies only to the *un*indented items in the outline. For example, is "The Omnibus Bill" more widely used than "The Great Compromise" to identify the event in question?

3. Does each *indented* phrase deal with an aspect of the event in question that is more significant than any which has been omitted?

If not, the reviewer is again requested to make the substitution which in his opinion is indicated. It should be noted that in a few instances important aspects or consequences have been deliberately omitted because they did not conveniently adapt themselves to exercises of this type. These omissions will be taken care of in other parts of the test. Any substitution made, therefore, should be adaptable to the type of exercise described.

4. Does each indented phrase serve *by itself* to unmistakably suggest to the informed student the event in question? Is it free from ambiguity—is it a *unique* statement?

If not, the reviewer is asked to suggest the necessary revision.

PART II

Part II of the test will be devoted primarily (but not exclusively) to the measurement of the student's knowledge of geography in its historical relations. It will consist of a single map exercise, based on an outline map of North America. This map will contain, in each form, about sixty numbered locations—of cities, rivers, islands, bodies of water, etc. Thirty test items will then be based on this map, of the nature indicated by the following illustration

Directions to the student: In each of the following items you will find a geographic location either named, or suggested by a characterizing phrase. For each item, find on the map the number corresponding to it, and write this number in the blank following the item. For example, in item 1 you are to find the dot on the map which best represents the location of Boston, and write the number corresponding to this dot in the blank oposite item 1.

1. Boston.....
2. San Francisco.....
3. Kaskaskia.....
4. New Haven.....
5. Vincennes.....
6. Montreal.....
7. Santiago.....
8. Hudson River.....
9. Columbia River.....
10. Potomac River.....
11. Rio Grande River.....
12. Caribbean Sea.....
13. Lake Huron.....
14. Puget Sound.....
15. Route of Lewis and Clark expedition.....
16. Sherman's line of march in 1864.....
17. Jamaica.....
18. Cape Hatteras.....
19. Ticonderoga.....
20. Richmond.....
21. The last colonial city occupied by British troops in the Revolution.....
22. The site of the surrender of Cornwallis.....
23. The seaport whose acquisition by the U. S. was most essential to expansion beyond the Alleghenies.....
24. The site of the first permanent English settlement in America.....
25. The site of the famous communistic settlement of the Mormons.....
26. The southern most river reached by Marquette and Joliet.....
27. The river which formed the western boundary of the U. S. until 1803.....
28. The line established by the Missouri Compromise to divide free and slave territory in the Louisiana Purchase.....
29. The island purchased from Denmark in 1917.....
30. The river claimed by Mexico as its boundary with the Texan Republic.....

Part II in any one of the ten equivalent forms will be similar to the illustration given, both in proportion of locations of various types and in the nature of the items. The last ten exercises in Part II will hold the student responsible, not only for the ability to locate on the map the place described or suggested, but also for the ability to recognize in the identifying phrase the place in question.

Because of the limited number of significant map locations taught in U. S. history, it will be necessary to use each location in from two to three of the ten equivalent forms. On the average, however, there will be less than 20 per cent direct duplication between any two forms.

While there are, of course, locations of importance in U. S. history that are not on a map of North America, the number of such locations (on a world map) is not sufficient for the construction of ten equivalent forms without a very high

proportion of duplication. They have therefore been arbitrarily eliminated from consideration in the examination.

The items in Part II of the examination will, then, be based entirely on the content of Part II in the outline. In evaluating this material, the reviewer is requested to consider the following questions:

1. Is each location more important (historically) than any which has been omitted?

2. Does each phrase (supplied for a location) describe one of the most significant reasons for the historical importance of the location in question?

3. Does the indented phrase uniquely describe the phrase in question? Is it free from ambiguity? (Again the necessity for avoiding irrelevant clues must be observed.)

PART III

Part III is intended to measure the student's ability *to associate historical* terms with their proper meanings. The specific nature of the items will be made clear by the following illustrative exercises:

Directions to the student: In each of the following exercises you will find three statements in the right-hand column, each of which defines or suggests one of the *five* terms in the left-hand column. In the blank after each statement write the letter corresponding to the term to which it *best* applies. (The blanks in the first exercise have been correctly filled.)

(*a*) Copperhead	A loyalist.....	*d*
(*b*) Muckraker	He would have favored a national bank, a protective tariff, and international improvements at the expense of the nation.	*e*
(*c*) Mugwump	A Democrat who opposed Lincoln's arbitrary methods of government and allegedly sympathized with the South....	*a*
(*d*) Tory		
(*e*) Whig		
(*a*) Freeport Doctrine	It declared that "neither slavery nor involuntary servitude" should ever exist in any part of the territory to be gained from Mexico by war.....	———
(*b*) Wilmot Proviso		
(*c*) Platt Amendment	It declared that "The right of the owner of a slave to such slave . . . is . . . as in-	

(*d*) Smith-Hughes Act	violable as the right of the owner of any property whatever.".....
(*e*) Lecompton Constitution	". . . no matter what the decision of the Supreme Court may be on that abstract question, still the right of the people to make a slave territory or a free territory is perfect and complete under the Nebraska Bill.".....

Certain unique characteristics of this type of exercise are especially relevant to the task of the reviewer.

The phrases used in the right-hand column need *not* in this case be unique, i.e., they need not comprise a completely unambiguous suggestion or identification of the term in question. They need only to be free from ambiguity as far as their applications to the *five* terms used in the particular exercise containing them is concerned. For example, a loyalist may be known by other terms than "Tory"—"loyalist" does not call to mind "Tory" and nothing else, but it certainly applies better to "Tory" than to any of the other four terms in the sample exercise. For this reason the reviewer need not be greatly concerned about ambiguities. What may appear to be serious ambiguities in many phrases in Part III of the outline will be taken care of by proper selection and collection of terms in constructing the exercises.

The problem of avoiding irrelevant clues becomes far more difficult in these exercises than in those previously described. To take a very simple illustration, if in the first exercise "Copperhead" had been printed in the plural—"Copperheads"—and if the corresponding phrase had read "Democrats who . . .," the wide-awake student might be enabled to make the correct response simply and only on the basis of grammatical consistency. Similarly, if the first phrase in the second exercise had read "It provided that . . .," the student might make the proper association on the basis that "provided" suggests "Proviso," even though he knows nothing about the Wilmot Proviso.

For these reasons it has been necessary to consider critically each word used in an identifying phrase, and to attempt to so phrase each item that it will be as flexible as possible

for subsequent grouping with other items. For example, in selecting a phrase to be used with "The Embargo Act,"

"An act placing an embargo on American ships"

would be obviously worthless for test purposes.

"An act which forbade American ships to clear for foreign ports"

would be better, but it would be effectively used only in an exercise containing two or more "acts."

"Forbade American ships to clear for foreign ports"

or

"Caused more suffering to American ship-owners than to the countries it was intended to coerce"

are both far better phrasings, since they may be used in exercises where the alternate terms are acts, bills, laws, treaties or legislative bodies. To the student who is not informed, the latter phrasing, for example, might mean almost anything. There is nothing in it to suggest the *kind* of term with which it should be matched, and yet it undoubtedly deals with a very important consequence of the Embargo Act, and could not be easily confused (by the well informed) with any other term.

The attempt thus made to avoid any later necessity of grouping together into the same exercise only terms that are extremely homogeneous may have resulted in what would otherwise be considered unnecessarily peculiar phrasings.

The questions to be emphasized by the reviewer in evaluating the content in Part III of the outline are as follows:

1. Is each term more important (historically) than any which has been omitted?

This question must be considered differently for different types of "terms." Some are common nouns or other words which appear frequently in historical literature or have a technical historical meaning. It is important that these be known by anyone who hopes to read history with understanding. Others are proper nouns or names which identify important historical events, institutions, organizations, etc. These the history student must also know in order to read history intelli-

gently, but in a different sense. He should know, not only *what* these names identify, but should also know *why* the things identified are important.

2. Does each phrase, opposite a given term, deal with a meaning of that term, or with an associated idea, that is more important than any which has been omitted?

PART IV

Part IV of the test will be of the same length and similar in form to Part III. It will test the student's knowledge of important historical personages, as well as his understanding of the things for which they are historically important. The following will illustrate the type of item to be used:

Directions to the students: In each of the following exercises you will find three statements in the right-hand column, each of which characterizes or suggests one of the five historical personages whose names are listed in the left-hand column. In the blank after each statement write the letter corresponding to the name of the person to whom it applies. (The blanks in the first exercise have been correctly filled.)

(*a*) Zenger	Superintendent of finances under the government provided for by the Articles of Confederation..... ___
(*b*) Burr	Embarked on a wild scheme that may have been intended to establish an independent state in the Mississippi Valley, or to carve an empire out of Spanish territory..... ___
(*c*) Morris	Secretary of the treasury under Jefferson, he showed a skill second only to Hamilton's in the management of the finances of his country..... ___
(*d*) Gallatin	
(*e*) Stuyvesant	

The technical problems in the construction of test items of this type are very similar to those discussed in the preceding section dealing with historical terms. Completely irrelevant clues are very easily avoided, since there is usually nothing in a given name to make it appear more plausible as the correct response to an item than any other. Great care must be taken, however, to avoid the danger that the pupil will make the correct response on some other basis

than that which the item is *intended* to measure. To take a very simple illustration, "As secretary of the treasury, he urged that the domestic as well as the foreign debts of the U. S. be paid in full" would be an easy item even though the student knew nothing about the latter part of the statement, if he knew only that Alexander Hamilton had been secretary of the treasury, and that the other persons named in the same exercise had not. The item as phrased would be good if the exercise contained names of other well known secretaries of the treasury, but would be more flexible for use with other terms if the words "secretary of the treasury" were omitted.

In the case of names, also, it is again unnecessary that the phrases provide a unique suggestion of the person named. Ambiguities will again be cared for by proper selection of the alternate names to be contained in the same exercise.

In the evaluation of the content in Part IV of the outline, then, the following questions are most important:

1. Is each person named historically more important than any person whose name is not included?
2. Does each phrase connected with a given name contain an idea that it is more important the student be able to associate with that name than any idea which has been omitted? (Again the convenience and effectiveness with which an idea can be adapted to this type of test exercise must be considered.)

PART V

Parts I to IV have dealt with certain specific abilities and items of information which are clearly basic to and part of general achievement in United States history. In preparing items for the testing of these abilities, an attempt has been made to place a premium upon *reasoned understanding*, as contrasted to superficial and rote learning of pat verbalizations that may or may not be meaningful to the student. To varying degrees, also, the items have been constructed so as to test the student's ability to *draw inferences* from facts. Many of the associations called for will not have

previously been pointed out to or learned by the student, and can only be made during the examination period as a result of inferential thinking. For example, the recognition that the phrase "Made further compromise on the slavery question impossible" applies better in a matching exercise to "Dred Scott Decision" than to "The Great Compromise" or "Kansas-Nebraska Bill" is almost certain to involve something more than mere recall. Even though the student remembers having heard the phrase used in connection with the Dred Scott Decision, he would most certainly at least *review* his previous reasoning before eliminating "The Great Compromise" as a possibility, particularly since he might be predisposed toward the latter matching by the appearance of the word "compromise" in both the term and the phrase. In a case of this kind the student who is "a bit shy on facts but long on reasoning" is likely to make a better response than the student of whom the reverse is true.

While there will be numerous instances in Parts I to IV, therefore, in which inferential thinking and reasoned understanding of no mean order will be required, the greatest emphasis on these higher abilities will be reserved for Part V of the examination. This part will consist of sixty-five multiple-choice exercises, and will require approximately one-half of the total testing time. In these exercises the student will be held responsible for an understanding of the significance, causes, and consequences of *groups* of events as well as of single events—of great political, social, and economic *movements* as well as of elements of them.

The following sample exercises will serve to illustrate the nature of the items which will constitute Part V of the examination.

Directions to the student: This part of the test consists of a number of incomplete statements. Each statement can be correctly completed by one of four words or phrases which follow it. Examine each statement and select the word or phrase which best completes the statement; then write the letter corresponding to this word or phrase in the blank at the left. The first example has been correctly filled out to show you how to proceed.

0. The first president of the United States was: (*a*) Adams; (*b*) Jefferson; (*c*) Washington; (*d*) Hamilton..... *c*

1. Magellan's voyage was important because he: (*a*) proved that there was a vast ocean between South America and Asia; (*b*) brought back a precious cargo of silks and spices; (*c*) first discovered the mainland of South America; (*d*) discovered the Pacific ocean..... ____

2. An important motive behind English colonization in the seventeenth century was: (*a*) the expansionist policies of the Tudor kings; (*b*) hard times caused by rising prices; (*c*) a desire to secure the source of Spain's prosperity; (*d*) the wars with France..... ____

3. New Netherland failed to prosper as a colony because: (*a*) the Dutch neglected to introduce negro slavery; (*b*) the French repeatedly waged war against it; (*c*) the Swedes on the Delaware were dangerous rivals; (*d*) the Dutch were interested primarily in maintaining trading posts for purposes of commercial gain..... ____

4. The conservation of forests is of national importance: (*a*) for the maintenance of an adequate fuel supply; (*b*) for preserving the soil and preventing sudden floods; (*c*) for the maintenance of game preserves; (*d*) for the sake of preventing fluctuations in the price of lumber..... ____

5. Roosevelt interpreted the Monroe Doctrine to mean that the United States: (*a*) will not permit foreign powers to exercise the right of intervention to collect debts in South America; (*b*) will go to war to prevent a collection of debts by force in the Americas; (*c*) will not go to war to prevent a European nation from collecting its just debts in South America providing the punishment inflicted does not take the form of acquisition of territory; (*d*) will submit disputes between the American republics and European powers to arbitration by the Hague Court..... ____

6. The British and the French were bitter rivals in North America because: (*a*) each hoped to conquer the Spanish colonies; (*b*) the French population was growing so rapidly as to endanger British superiority in numbers; (*c*) the French incited the Iroquois to make frequent raids; (*d*) the French had built up a frontier in the interior that threatened to prevent English expansion beyond the Alleghenies..... ____

7. The tide of emigration to the West swelled rapidly following the War of 1812 because of: (*a*) the Homestead Act; (*b*) the rivalry between "free soil" and slavery interests; (*c*) the escape of the Northwest from the Indian menace following Harrison's victory at Tippecanoe; (*d*) the building of railroads. ____

The procedure in constructing an item of this type consists in general of taking a question of the ordinary essay type and preparing one correct and three incorrect but plausible responses for it. For the convenience of the reviewer, therefore, Part V of the outline consists only of the "essay" questions which will serve as the basis for the actual test items. This material, presented in the form of the finished test items, would have covered perhaps two hundred typewritten pages, a form which would hinder rather than facilitate the task of the reviewer.

Since the phrasing of the items in Part V of the outline is not to be retained in the actual test item, no great pains have been taken to state the questions in the best form possible. The reviewer is requested, therefore, to consider only the idea with which the question is concerned, and to overlook any awkwardness in the expression of the question itself.

Because of the bulk of the material in Part V, it will not be convenient for the reviewer to attempt any careful *relative* evaluation of the items included. He is therefore asked simply to cross out any items which he considers of little importance, and then, after having reviewed the entire section, to go back and provide similar questions, at any point in the outline, which in his opinion would provide the basis for a good multiple-choice question. He is requested particularly to pass judgment on the *balance* of types of material included. For example, is too much importance given to political and military history, as contrasted to social and economic history? Is the history of the development of the arts—music, literature, architecture, painting, etc.—slighted? Is there an insufficient number of questions whose answers contribute directly to a reasoned understanding of the life of *today*?

In relation to questions of this type, due consideration must be given to the fact that an examination of this type must be restricted, within reasonable limits, to what the student has had opportunity to learn, in or out of the classroom.

OBJECTIVES MEASURED BY THE TEST

In preparing this examination, the authors have kept in as close touch as possible with the work of the Social Studies Investigation, and have tried to conform to the most recent and authoritative available statements of objectives. An effort has been made to provide an instrument for measuring the products of the best current practices, while at the same time allowing for desirable trends that are now taking place or that shoud take place in the teaching or learning of American history. This is a compromise which must be made now, and which must always be made in the future, in all examinations which are intended for practical use. It is our hope that, with your help, we may make this American history examination a constructive compromise.

The problem of determining the objectives tested, therefore, becomes simply one of *describing good practice* as it is now found—of phrasing a series of statements under which the content of present instruction can be conveniently classified. The same content could perhaps be equally well classified under other statements, differently phrased. The real problem, therefore, is not how well do the statements presented below describe the objectives of history teaching, but how well does the material in the outline, *taken collectively*, describe the tangible results, in the student, of good history teaching?

In view of these considerations, it is believed that the informational aspect of the tests is to be construed as a decidedly desirable and essential characteristic.

A. E. LINDQUIST,
University of Iowa.

Index

January—December, 1931

Accredited Higher Institutions, 1931, pp. 179–198.
Accrediting Practices, Principles Which Should Govern Standards and, Samuel P. Capen, pp. 93–103.
Adult Education, Costs of in Urban Universities, Henry J. Doermann, pp. 286–290.
Annual Meeting, The Fourteenth, 1931, pp. 201–204.
A State University Reaches Out, Philip A. Parsons, pp. 450–458.
Baker, Newton D., World Economic Planning, pp. 383–407.
Brakeley, George A., Tuition and the Student's Share of the Cost of Education, pp. 312–321.
Budget, Director's, 1931–32, p. 214.
Butterfield, E. W., The School and The Community, pp. 125–137.
Capen, Samuel P., The Principles Which Should Govern Standards and Accrediting Practices, pp. 93–103.
Capen, Samuel P., Report of the Committee on Problems and Plans in Education, pp. 228–236.
Chairman's Address—Education and Politics, Charles H. Judd, pp. 253–264.
Chicago Plan, The, Robert Maynard Hutchins, pp. 24–29.
Chicago Plan, The, Beardsley Ruml, pp. 359–368.
Criteria of Achievement, Significant Actions and, pp. 429–436.
Coffman, Lotus D., Two Ways of Improving the State Universities, pp. 3–13.
College Testing Program of the Cooperative Test Service, Proposed 1932, J. B. Johnston, pp. 344–352.
Committee on Personnel Methods, Report of, John H. MacCracken, pp. 237–243.
Committee on Problems and Plans in Education, Report of, Samuel P. Capen, pp. 228–236.
Committee on Problems and Plans in Education, John H. MacCracken, pp. 39–42.
Congress of the Universities of the British Empire, John H. MacCracken, pp. 437–449.
Constitution of the American Council on Education, pp. 369–371.
Contribution of Boards and Foundations, Anson Phelps Stokes, pp. 322–332.
Cooper, William John, The Educational Finance Inquiry, pp. 333–343.
Cooperative Test Service, The, Herbert E. Hawkes, pp. 30–38.
Cooperative Test Service, The, Ben D. Wood, pp. 244–252.
Cooperative Test Service, Form of the American History Examination of the, E. F. Lindquist, pp. 459–475.
Copyright and the Prohibition of Importation of Books, Thorvald Solberg, pp. 84–90.
Costs of Adult Education in Urban Universities, Henry J. Doermann, pp. 286–290.
Crawford, Albert Beecher, Too Much Knowledge, pp. 144–159.
Davis, Harvey N., Education Research Committee of Engineering Foundation, pp. 265–271.

Director's Budget, 1931–1932, p. 214.
Director's Report—Issues, C. R. Mann, pp. 219–227.
Doermann, Henry J., Costs of Adult Education in Urban Universities, pp. 286–290.
Economic Impasse of the Western World, Glenn Frank, pp. 14–23.
Education and Politics—Chairman's Address, Charles H. Judd, pp. 253–264.
Education by Radio, National Committee on, Joy E. Morgan, pp. 353–358.
Education Research Committee of Engineering Foundation, Harvey N. Davis, pp. 265–271.
Educational Finance Inquiry, William John Cooper, pp. 333–343.
Educational Research in the Field of Emotion. Frederick H. Lund, pp. 138–143.
Educational Research, Improvement of College Instruction through, M. E. Haggerty, pp. 43–70.
Examinations in the University of Life, Owen D. Young, pp. 408–416.
Executive Committee, Report of, pp. 205–213.
Finance Inquiry, The Educational, Wm. John Cooper, pp. 333–343.
Finance, State University, Shirley W. Smith, pp. 272–278.
Financial Support for the Liberal Arts College, Sources of, George L. Omwake, pp. 279–285.
Financing the Public School System, Henry C. Morrison, pp. 291–299.
Form of the American History Examination of the Cooperative Test Service, E. F. Lindquist, pp. 459–475.
Fourteenth Annual Meeting, 1931, pp. 201–204.
Frank, Glenn, The Economic Impasse of the Western World, pp. 14–23.
Freshman Scholarship, Personal Service and, Lonzo Jones, pp. 71–83.
Gifts for Education, Marshall Olds, pp. 300–311.
Haggerty, M. E., Improvement of College Instruction through Educational Research, pp. 43–70.
Hawkes, Herbert E., The Cooperative Test Service, pp. 30–38.
Hutchins, Robert Maynard, The Chicago Plan, pp. 24–29.
Improvement of College Instruction through Educational Research, M. E. Haggerty, pp. 43–70.
Inaugural Address, Robert Gordon Sproul, pp. 104–124.
Issues, Director's Report, 1931, C. R. Mann., pp. 219–227.
Johnston, J. B., The Proposed 1932 College Testing Program of the Cooperative Test Service, pp. 344–352.
Jones, Lonzo, Personal Service and Freshman Scholarship, pp. 71–83.
Judd, Charles H., Chairman's Address—Education and Politics, pp. 253–264.
Lindquist, E. F., The Form of the American History Examination of the Cooperative Test Service, pp. 459–475.
Lund, Frederick H., Educational Research in the Field of Emotion, pp. 138–143.
MacCracken, John H., The Committee on Problems and Plans in Education, pp. 39–42.
MacCracken, John H., Congress of the Universities of the British Empire, pp. 437–449.
MacCracken, John H., Report of the Committee on Personnel Methods, pp. 237–243.
Mann, C. R., Director's Report, 1931—Issues, pp. 219–227.
Mann, C. R., What Action Is of Most Worth? pp. 417–428.
Members and Officers, of the American Council on Education, 1931–32, pp. 372–379.

Morgan, Joy E., The National Committee on Education by Radio, pp. 353–358.
Morrison, Henry C., Financing the Public School System, pp. 291–299.
National Committee on Education by Radio, Joy E. Morgan, pp. 353–358.
Officers and Members of the American Council on Education, 1931–32, pp. 372–379.
Olds, Marshall, Gifts for Education, pp. 300–311.
Omwake, George L., Sources of Financial Support for the Liberal Arts College, pp. 279–285.
Parsons, Philip A., A State University Reaches Out, pp. 450–458.
Personal Service and Freshman Scholarship, Lonzo Jones, pp. 71–83.
Personnel Methods, Report of the Committee on, John H. McCracken, pp. 237–243.
Principles Which Should Govern Standards and Accrediting Practices, Samuel P. Capen, pp. 93–103.
Problems and Plans in Education, The Committee on, John H. MacCracken, pp. 39–42.
Problems and Plans in Education, Report of the Committee on, Samuel P. Capen, pp. 228–236.
Proposed 1932 College Testing Program of the Cooperative Test Service, J. B. Johnston, pp. 344–352.
Psychological Examination, The 1930, L. L. Thurstone and Thelma Gwinn Thurstone, pp. 160–178.
Radio, National Committee on Education by, Joy E. Morgan, pp. 353–358.
Report of the Committee on Personnel Methods, John H. MacCracken, pp. 237–243.
Report of the Committee on Problems and Plans in Education, Samuel P. Capen, pp. 228–236.
Report on the Cooperative Test Service, Ben D. Wood, pp. 244–252.
Report of the Director—Issues, C. R. Mann, pp. 219–227.
Report of the Executive Committee, pp. 205–213.
Report of the Treasurer, pp. 215–218.
Ruml, Beardsley, The Chicago Plan, pp. 359–368.
School and The Community, The, E. W. Butterfield, pp. 125–137.
Significant Actions and Criteria of Achievement, pp. 429–436.
Smith, Shirley W., State University Finance, pp. 272–278.
Solberg, Thorvald, Copyright and the Prohibition of Importation of Books, pp. 84–90.
Sources of Financial Support by the Liberal Arts College, George L. Omwake, pp. 279–285.
Sproul, Robert Gordon, Inaugural Address, pp. 104–124.
Standards and Accrediting Practices, The Principles Which Should Govern, Samuel P. Capen, pp. 93–103
State University Finance, Shirley W Smith, pp. 272–278.
State University Reaches Out, A., Philip A. Parsons, pp. 450–458.
State Universities, Two Ways of Improving, Lotus D. Coffman, pp. 3–13.
Stokes, Anson Phelps, The Contribution of Boards and Foundations, pp. 322–332.
Testing Program of the Cooperative Test Service, Proposed 1932, pp. 344–352.
Thurstone, L. L., and Thelma Gwinn, The 1930 Psychological Examination, pp. 160–178.
Too Much Knowledge, Albert Beecher Crawford, pp. 144–159.

Treasurer's Report, pp. 215–218.
Tuition and the Student's Share of the Cost of Education, George A. Brakeley, pp. 312–321.
Two Ways of Improving the State Universities, Lotus D. Coffman, pp. 3–13.
Universities of the British Empire, Congress of the, John H. MacCracken, pp. 437–449.
What Action Is of Most Worth? C. R. Mann, pp. 417–428.
Wood, Ben D., The Cooperative Test Service, pp. 244–252.
World Economic Planning, Newton D. Baker, pp. 383–407.
Young, Owen D., Examinations in the University of Life, pp. 408–416.